

SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECORDER

BASIC TAPE MECHANISM : 2ZM-1 YR7NC
BASIC CD MECHANISM : 3ZG-3 E2NC

SPECIFICATIONS

<Tuner section>

(FM)

| | |
|--------------|-----------------------|
| Tuning range | 87.5 MHz to 108.0 MHz |
| Antenna | Rod antenna |

(AM) (MW)

| | |
|--------------|-----------------------------------------------------------------------|
| Tuning range | 531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step) |
| Antenna | Ferrite bar antenna |

(LW) <EZ Model>

| | |
|--------------|--------------------|
| Tuning range | 153 kHz to 288 kHz |
| Antenna | Ferrite antenna |

<Cassette deck section>

| | |
|--------------------|-------------------------------------------------|
| Track format | 4 track, 2 channels stereo |
| Frequency response | Normal tape: 50 Hz - 12500 Hz |
| Recording system | AC bias |
| Erasing system | Magnet erase |
| Heads | Recording/Playback head x 1 Erasure head x 1 |

<Compact disc player section>

| | |
|---------------|----------------------------------------------|
| Laser | Semiconductor ($\lambda = 780 \text{ nm}$) |
| D-A converter | 1 bit dual |

<General>

| | |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Speakers | 100 mm cone type (2) |
| Power output <HR Model> | 2.5 W + 2.5 W (10% T.H.D./7 Ω DC) 1.7 W + 1.7 W (DIN 1% Rated Power) |
| Power output <EZ Model> | 5 W + 5 W (DIN Music Power) 4.5 W + 4.5 W (10% T.H.D./3.2 Ω DC) 3.3 W + 3.3 W (DIN 1% Rated Power) |
| Output | Headphones (stereo minijack) |
| Power requirements | DC 12 V using eight size C (R14) batteries <HR Model> 110 - 120 V / 220 - 240 V AC Switchable, 50/60 Hz <EZ Model> 230 V AC, 50 Hz |
| Power consumption | 18 W <HR Model> 20 W <EZ Model> |
| Dimensions of main unit | (W x H x D) 445 x 168 x 237 mm |
| Weight of main unit | 4.1 kg not including batteries |

- Design and specifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

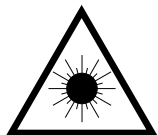
| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------------|-----------------------|-------------|
| 1 | 8Z-CH2-907-010 | IB,H(ECA)FM<HR> | |
| 1 | 8Z-CH2-908-010 | IB,EZ(9L)FM<EZ> | |
| 2 | 8Z-CK4-962-010 | RC UNIT,RC-ZAT04 (VS) | |
| 3 | 87-050-076-010 | AC CORD SET ASSY,E | |
| 4 | 87-099-789-010 | PLUG,ADPTR IR44<HR> | |

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

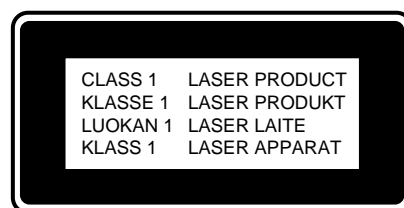
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

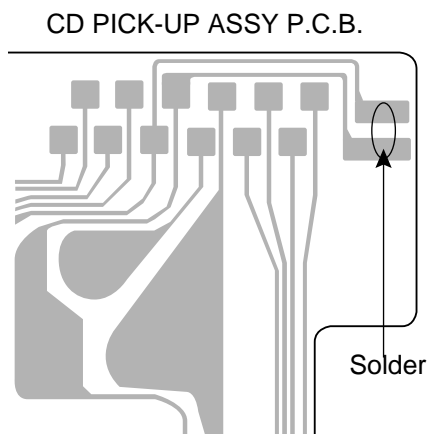


Precaution to replace Optical block

(KSS – 213B)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|------------|----------------|------------------------|-------------|---------|----------------|-----------|------------------------|
| IC | | | | C233 | 87-010-382-080 | | CAP, ELECT 22-25V |
| | 87-A20-459-010 | C-IC,LC78622ED | | C235 | 87-A10-175-010 | | CAP,CER 820P-50 K B |
| | 8Z-CH1-622-010 | IC,LC867132V-5L08 | | C236 | 87-A10-175-010 | | CAP,CER 820P-50 K B |
| | 87-A21-184-010 | IC,TA2104AN | | C237 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-A21-185-040 | C-IC,LC72121M | | C238 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-001-982-010 | IC,TA7291S | | C251 | 87-010-400-080 | | CAP, ELECT 0.47-50V |
| | | | | C252 | 87-010-400-080 | | CAP, ELECT 0.47-50V |
| | 87-A21-103-040 | C-IC,MM1454XFBE | | C255 | 87-010-546-080 | | CAP, ELECT 0.33-50V |
| | 87-A20-715-010 | IC,M62439SP | | C256 | 87-010-546-080 | | CAP, ELECT 0.33-50V |
| | 87-A20-591-010 | IC,BA5417 | | C257 | 87-010-544-080 | | CAP, ELECT 0.1-50V |
| | 87-017-889-010 | IC,NJM4558LD | | C258 | 87-010-544-080 | | CAP, ELECT 0.1-50V |
| | 87-017-804-010 | IC,BU4052BC | | C261 | 87-010-263-080 | | CAP, ELECT 100-10V |
| | | | | C262 | 87-010-408-080 | | CAP, ELECT 47-50V |
| | 87-070-282-010 | IC,BU2092 | | C269 | 87-010-402-080 | | CAP, ELECT 2.2-50V |
| | 87-A20-446-010 | C-IC,LA9241ML | | C270 | 87-010-402-080 | | CAP, ELECT 2.2-50V |
| | 87-A21-093-010 | IC,LA6541D | | C271 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-070-416-010 | IC,NJU7201 L55 | | C272 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-A20-911-010 | IC,RPM6938 | | C275 | 87-010-382-080 | | CAP, ELECT 22-25V |
| | | | | C276 | 87-010-382-080 | | CAP, ELECT 22-25V |
| | 87-020-454-010 | IC,DN6851 | | C277 | 87-010-260-080 | | CAP, ELECT 47-25V |
| TRANSISTOR | | | | C278 | 87-010-384-080 | | CAP, ELECT 100-25V |
| | 87-026-291-080 | TR,DTC124XS | | C279 | 87-010-235-080 | | CAP,E 470-16 SME |
| | 89-213-702-080 | TR,2SB1370E | | C281 | 87-010-380-080 | | CAP, ELECT 47-16V |
| | 89-319-233-080 | TR,2SC1923 (0.1W) | | C282 | 87-010-380-080 | | CAP, ELECT 47-16V |
| | 87-026-447-080 | TR,2SC1740S RS | | C283 | 87-010-236-080 | | CAP,E 1000-10 SME |
| | 87-A30-092-080 | FET, 2SK439E/F<EZ> | | C284 | 87-010-236-080 | | CAP,E 1000-10 SME |
| | | | | C287 | 87-A10-170-010 | | CAP,CER 330P-50 K B |
| | 89-320-011-080 | TR,2SC2001K(15W) | | C288 | 87-A10-170-010 | | CAP,CER 330P-50 K B |
| | 87-026-214-080 | TR,DTA114YS (0.3W)<EZ> | | C291 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-026-463-080 | TR,2SA933SRS(0.3W) | | C292 | 87-018-119-080 | | CAP, CER 100P-50V |
| | 89-109-521-080 | TR,2SA952K(0.6W) | | C305 | 87-010-263-080 | | CAP, ELECT 100-10V |
| | 87-026-215-080 | TR,DTC114YS | | C306 | 87-010-263-080 | | CAP, ELECT 100-10V |
| | | | | C311 | 87-010-546-080 | | CAP, ELECT 0.33-50V |
| | 89-318-155-080 | TR,2SC1815GR(0.4W) | | C312 | 87-010-546-080 | | CAP, ELECT 0.33-50V |
| | 87-A30-090-080 | FET, 2SK2541 | | C323 | 87-A10-170-010 | | CAP,CER 330P-50 K B |
| | 87-A30-151-080 | TR,2SA1993 | | C324 | 87-A10-170-010 | | CAP,CER 330P-50 K B |
| | 87-026-610-080 | TR,KTC3198GR | | C331 | 87-A10-171-010 | | CAP,CER 390P-50 K B |
| | 87-A30-190-080 | TR,CC5551<EZ> | | C332 | 87-A10-171-010 | | CAP,CER 390P-50 K B |
| | | | | C333 | 87-A10-173-010 | | CAP,CER 560P-50 K B |
| | 87-A30-154-080 | TR,RT1N441S | | C340 | 87-010-382-080 | | CAP, ELECT 22-25V |
| | 87-026-464-080 | TR,DTC114TS | | C342 | 87-018-123-080 | | CAP, CER 220P-50V<EZ> |
| | 87-026-486-080 | TR,DTA144TS | | C347 | 87-010-374-080 | | CAP, ELECT 47-10V |
| | 87-026-502-080 | DTC144TS | | C363 | 87-010-405-080 | | CAP, ELECT 10-50V |
| | 89-112-965-080 | TR,2SA1296GR(0.75W) | | C364 | 87-010-405-080 | | CAP, ELECT 10-50V |
| | | | | C369 | 87-A10-163-010 | | CAP,CER 82P-50 K SL |
| | 87-026-462-080 | TR,2SC1740 S(RS 0.3W) | | C370 | 87-A10-163-010 | | CAP,CER 82P-50 K SL |
| | 89-113-187-080 | TR,2SA1318TU | | C373 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-026-245-080 | TR,DTC114ES | | C374 | 87-010-401-080 | | CAP, ELECT 1-50V |
| DIODE | | | | C382 | 87-010-401-080 | | CAP, ELECT 1-50V |
| | 87-017-072-080 | ZENER,HZS3B1 | | C383 | 87-010-248-080 | | CAP, ELECT 220-10V |
| | 87-A40-292-080 | ZENER,DZ2.7L | | C384 | 87-010-374-080 | | CAP, ELECT 47-10V |
| | 87-017-139-080 | ZENER,HZS15-2 | | C387 | 87-018-123-080 | | CAP, CER 220P-50V<EZ> |
| | 87-070-345-080 | DIODE,1N4148 | | C401 | 87-010-403-080 | | CAP, ELECT 3.3-50V |
| | 87-027-606-080 | ZENER,HZS7C2L(200MA) | | C402 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 |
| | | | | C403 | 87-010-263-080 | | CAP, ELECT 100-10V |
| | 87-017-148-080 | ZENER,HZS6A1L | | C404 | 87-010-248-080 | | CAP, ELECT 220-10V |
| | 87-A40-465-010 | DIODE,FR202 | | C405 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 |
| | 87-017-159-080 | ZENER,HZS7B3L | | C406 | 87-010-374-080 | | CAP, ELECT 47-10V |
| MAIN C.B | | | | C409 | 87-010-248-080 | | CAP, ELECT 220-10V |
| C101 | 87-A10-182-010 | CAP,CER 0.01-50 Z F | | C410 | 87-010-263-080 | | CAP, ELECT 100-10V |
| C102 | 87-010-112-080 | CAP, ELECT 100-16V | | C412 | 87-010-401-080 | | CAP, ELECT 1-50V |
| C205 | 87-010-401-080 | CAP, ELECT 1-50V | | C414 | 87-010-405-080 | | CAP, ELECT 10-50V |
| C206 | 87-010-401-080 | CAP, ELECT 1-50V | | C416 | 87-010-545-080 | | CAP, ELECT 0.22-50V |
| C211 | 87-010-405-080 | CAP, ELECT 10-50V | | C417 | 87-018-125-080 | | CAP, CER 330P-50V |
| C212 | 87-010-405-080 | CAP, ELECT 10-50V | | C425 | 87-018-129-080 | | CAP, CER 680P-50V |
| C219 | 87-010-375-010 | CAP,E 330-10 SME | | C430 | 87-018-123-080 | | CAP, CER 220P-50V |
| C221 | 87-010-263-080 | CAP, ELECT 100-10V | | C431 | 87-010-545-080 | | CAP, ELECT 0.22-50V |
| C222 | 87-010-405-010 | CAP 10-50SME | | C432 | 87-010-374-080 | | CAP, ELECT 47-10V |
| C223 | 87-010-405-010 | CAP 10-50SME | | C433 | 87-010-401-080 | | CAP, ELECT 1-50V |
| C224 | 87-010-380-080 | CAP, ELECT 47-16V | | C435 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 |
| C232 | 87-A10-170-010 | CAP,CER 330P-50 K B | | | | | |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------------|-----------|------------------------|-----------|----------------|-----------|-------------------------|
| C436 | 87-010-374-080 | | CAP, ELECT 47-10V | CNA401 | 88-802-042-430 | | CONN ASSY,4P ORN |
| C437 | 87-010-404-080 | | CAP, ELECT 4.7-50V | CON203 | 88-CD5-637-010 | | CONN ASSY,4P SP |
| C438 | 87-018-209-080 | | CAP, CER 0.1-50V | FFC1 | 88-CD5-638-010 | | FF-CABLE, 16P 1.0 220MM |
| C440 | 87-018-139-080 | | CAP,TC U 1P-50 CH | FFC2 | 88-906-181-110 | | FF-CABLE,6P 1.25 |
| C442 | 87-018-149-080 | | CAP,TC U 15P-50 J CH | FFC3 | 88-905-141-110 | | FF-CABLE, 5P 1.25 |
| C445 | 87-018-209-080 | | CAP, CER 0.1-50V | J201 | 87-009-216-010 | | JACK, DIA 3.5 |
| C446 | 87-018-209-080 | | CAP, CER 0.1-50V | L301 | 87-003-102-080 | | COIL, 10UH |
| C447 | 87-018-209-080 | | CAP, CER 0.1-50V | L331 | 87-007-342-010 | | COIL,OSC 85K BIAS |
| C448 | 87-018-111-080 | | CAP, CERA-SOL SS 27P | L401 | 87-003-102-080 | | COIL, 10UH |
| C450 | 87-018-127-080 | | CAP, CER 470P-50V | L404 | 87-003-152-080 | | COIL, 100UH |
| C451 | 87-018-123-080 | | CAP, CER 220P-50V | L405 | 87-003-152-080 | | COIL, 100UH |
| C455 | 87-010-263-080 | | CAP, ELECT 100-10V | L406 | 81-NWB-655-010 | | COIL,10UH TROIDAL |
| C457 | 87-018-113-080 | | CAP, CER 33P-50V | L407 | 81-NWB-655-010 | | COIL,10UH TROIDAL |
| C458 | 87-018-113-080 | | CAP, CER 33P-50V | L412 | 81-NWB-655-010 | | COIL,10UH TROIDAL |
| C459 | 87-010-263-080 | | CAP, ELECT 100-10V | L501 | 81-NWB-655-010 | | COIL,10UH TROIDAL |
| C460 | 87-018-209-080 | | CAP, CER 0.1-50V | SFR430 | 87-024-176-010 | | SFR,100K DIA6 V |
| C461 | 87-018-209-080 | | CAP, CER 0.1-50V | X401 | 81-592-641-010 | | VIB,CER 16.93MHZ |
| C462 | 87-010-248-080 | | CAP, ELECT 220-10V | | | | |
| C465 | 87-010-404-080 | | CAP, ELECT 4.7-50V | | | | |
| C466 | 87-018-209-080 | | CAP, CER 0.1-50V | FRONT C.B | | | |
| C467 | 87-010-263-080 | | CAP, ELECT 100-10V | C601 | 87-010-263-080 | | CAP, ELECT 100-10V |
| C469 | 87-018-121-080 | | CAP, CER 150P-50V | C602 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F |
| C470 | 87-010-544-080 | | CAP, ELECT 0.1-50V | C603 | 87-015-696-080 | | CAP,E 2.2-50 7L |
| C475 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 | C604 | 87-A10-373-080 | | CAP,E 220-6.3 M SSL |
| C476 | 87-010-236-080 | | CAP,E 1000-10 SME | C605 | 87-018-209-080 | | CAP, CER 0.1-50V |
| C477 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 | C606 | 87-015-696-080 | | CAP,E 2.2-50 7L |
| C478 | 87-010-263-080 | | CAP, ELECT 100-10V | C607 | 87-015-694-080 | | CAP,E 0.47-50 7L |
| C479 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 | C608 | 87-018-209-080 | | CAP, CER 0.1-50V |
| C480 | 87-010-221-080 | | CAP, ELECT 470-10V | C609 | 87-A10-139-010 | | CAP,CER 18P-50 K CH |
| C481 | 87-010-405-080 | | CAP, ELECT 10-50V | C610 | 87-A10-140-010 | | CAP,CER 22P-50 K CH |
| C482 | 87-010-405-080 | | CAP, ELECT 10-50V | C611 | 87-018-114-080 | | CAP, CERA-SOL SS 39P |
| C483 | 87-018-123-080 | | CAP, CER 220P-50V | C612 | 87-018-114-080 | | CAP, CERA-SOL SS 39P |
| C484 | 87-018-123-080 | | CAP, CER 220P-50V | C613 | 87-A10-138-010 | | CAP,CER 15P-50 K CH |
| C487 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 | C614 | 87-A10-373-080 | | CAP,E 220-6.3 M SSL |
| C489 | 87-018-209-080 | | CAP, CER 0.1-50V | C616 | 87-018-119-080 | | CAP, CER 100P-50V |
| C490 | 87-018-209-080 | | CAP, CER 0.1-50V | C617 | 87-018-119-080 | | CAP, CER 100P-50V |
| C491 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F | C618 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F |
| C492 | 87-010-221-080 | | CAP, ELECT 470-10V | C619 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F |
| C493 | 87-018-119-080 | | CAP, CER 100P-50V | C621 | 87-015-699-080 | | CAP,E 10-50 7L |
| C494 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F | C622 | 87-A10-166-010 | | CAP,CER 150P-50 K B |
| C500 | 87-018-134-080 | | CAPACITOR,TC-U 0.01-16 | C623 | 87-A10-166-010 | | CAP,CER 150P-50 K B |
| C501 | 87-018-119-080 | | CAP, CER 100P-50V | C625 | 87-018-119-080 | | CAP, CER 100P-50V |
| C502 | 87-018-119-080 | | CAP, CER 100P-50V | C626 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F |
| C503 | 87-018-119-080 | | CAP, CER 100P-50V | C627 | 87-018-209-080 | | CAP, CER 0.1-50V |
| C504 | 87-018-119-080 | | CAP, CER 100P-50V | C628 | 87-015-677-080 | | CAP,E 100-6.3 7L |
| C505 | 87-018-119-080 | | CAP, CER 100P-50V | C629 | 87-A10-160-010 | | CAP,CER 47P-50 K SL |
| C506 | 87-018-119-080 | | CAP, CER 100P-50V | C631 | 87-018-119-080 | | CAP, CER 100P-50V |
| C510 | 87-018-209-080 | | CAP, CER 0.1-50V | C632 | 87-A10-160-010 | | CAP,CER 47P-50 K SL |
| C511 | 87-010-263-080 | | CAP, ELECT 100-10V | C633 | 87-018-119-080 | | CAP, CER 100P-50V |
| C512 | 87-010-385-080 | | CAP, ELECT 220-25V | C634 | 87-015-677-080 | | CAP,E 100-6.3 7L |
| C514 | 87-010-248-080 | | CAP, ELECT 220-10V | C635 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F |
| C520 | 87-010-384-080 | | CAP, ELECT 100-25V | CN601 | 87-009-880-010 | | CONN,10P TKC-T H(M) |
| C521 | 87-010-453-010 | | CAP, ELECT 4700-25V | CN602 | 87-009-880-010 | | CONN,10P TKC-T H(M) |
| C526 | 87-010-404-080 | | CAP, ELECT 4.7-50V | CNA601 | 8Z-CH2-910-010 | | CONN ASSY,6P V WHT |
| C527 | 87-010-401-080 | | CAP, ELECT 1-50V | CNA602 | 88-802-091-220 | | CONN ASSY,9P RED |
| C528 | 87-010-221-080 | | CAP, ELECT 470-10V | D601 | 87-A40-162-010 | | LED,L-1154SRD |
| C529 | 87-010-263-080 | | CAP, ELECT 100-10V | L601 | 81-NWB-655-010 | | COIL,10UH TROIDAL |
| C530 | 87-010-248-080 | | CAP, ELECT 220-10V | LCD601 | 8Z-CH1-623-010 | | LCD,ZCH-2 |
| C536 | 87-010-386-080 | | CAP,E330-25 SME | AR668 | 87-029-124-010 | | RES,FUSE 2.2-1/4 |
| C537 | 87-A10-182-010 | | CAP,CER 0.01-50 Z F | S601 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| C542 | 87-010-221-080 | | CAP, ELECT 470-10V | S602 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| C543 | 87-010-401-080 | | CAP, ELECT 1-50V | S603 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN103 | 87-A60-062-010 | | CONN,05P V 9604S-05C | S604 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN201 | 87-009-883-010 | | CONN,10P TKC-T H(F) | S605 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN202 | 87-009-883-010 | | CONN,10P TKC-T H(F) | S606 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN203 | 87-A60-457-010 | | CONN,4P V TID-X | S607 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN301 | 87-A60-112-010 | | CONN,7P V S2M-7W | S608 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN401 | 87-A60-424-010 | | CONN,16P V TOC-B | S609 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN402 | 8Z-CT6-631-010 | | CONN ASSY,6P CD MO | S610 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| CN501 | 87-099-827-010 | | CONN,3P S2M-3W | S611 | 87-A90-095-080 | | SW,TACT EVQ11G04M |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|-----------|----------------|-----------------|---------------------|-------------------|----------------|----------------------|------------------|
| S612 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C43 | 87-012-349-080 | C-CAP,S | 1000P-50 CH |
| S613 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C44 | 87-010-311-080 | CAP | 12P |
| S614 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C45 | 87-010-312-080 | C-CAP,S | 15P-50 CH |
| S615 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C46 | 87-010-197-080 | CAP, CHIP | 0.01 DM |
| S616 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C47 | 87-010-197-080 | CAP, CHIP | 0.01 DM |
| S617 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C48 | 87-010-197-080 | CAP, CHIP | 0.01 DM |
| S618 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C49 | 87-010-322-080 | C-CAP,S | 100P-50 CH |
| S619 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C50 | 87-010-197-080 | CAP, CHIP | 0.01 DM |
| S620 | 87-A90-095-080 | SW,TACT | EVQ11G04M | C51 | 87-010-316-080 | C-CAP,S | 33P-50 CH<EZ> |
| S621 | 87-A90-798-010 | SW,RTRY | 1-2-24 EVQVENF0124B | C52 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> |
| X601 | 87-030-273-010 | VIB,XTAL | 32.768K5PPM | C53 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> |
| X602 | 87-A70-070-080 | VIB,CER | 5.76MHZ CRHF | C54 | 87-014-055-080 | CAP,PP | 820P-100 J<EZ> |
| LED C.B | | | | C55 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> |
| D651 | 87-A40-161-010 | LED,L-1154SGD | | C60 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25<EZ> |
| D652 | 87-A40-161-010 | LED,L-1154SGD | | C61 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25<EZ> |
| D653 | 87-A40-161-010 | LED,L-1154SGD | | C71 | 87-010-197-080 | CAP, CHIP | 0.01 DM<HR> |
| D654 | 87-A40-161-010 | LED,L-1154SGD | | C72 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25<HR> |
| D655 | 87-A40-161-010 | LED,L-1154SGD | | C73 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25<HR> |
| D656 | 87-A40-161-010 | LED,L-1154SGD | | C78 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> |
| D657 | 87-A40-161-010 | LED,L-1154SGD | | C91 | 87-A10-160-010 | CAP,CER | 47P-50 K SL<HR> |
| D658 | 87-A40-161-010 | LED,L-1154SGD | | C91 | 87-012-140-080 | CAP | 470P<EZ> |
| D659 | 87-A40-161-010 | LED,L-1154SGD | | C92 | 87-A10-160-010 | CAP,CER | 47P-50 K SL<HR> |
| D660 | 87-A40-161-010 | LED,L-1154SGD | | C92 | 87-012-140-080 | CAP | 470P<EZ> |
| TUNER C.B | | | | C93 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> |
| C1 | 87-010-314-080 | C-CAP,S | 22P-50V | C927 | 87-010-316-080 | C-CAP,S | 33P-50 CH |
| C2 | 87-010-315-080 | C-CAP,S | 27P-50 CH | C929 | 87-010-316-080 | C-CAP,S | 33P-50 CH |
| C3 | 87-010-314-080 | C-CAP,S | 22P-50V | C930 | 87-010-316-080 | C-CAP,S | 33P-50 CH |
| C5 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25<HR> | CF1 | 87-A91-094-010 | FLTR,CDA10.7 | MG80A |
| C5 | 87-A10-484-080 | C-CAP,S | 1.0U-10 K B<EZ> | CF2 | 82-785-747-080 | CF,MS2 GHY,R | |
| C6 | 87-010-312-080 | C-CAP,S | 15P-50 CH | CF3 | 82-785-747-080 | CF,MS2 GHY,R | |
| C7 | 87-012-140-080 | CAP | 470P<EZ> | CN11 | 87-A60-110-010 | CONN,4P V | S2M-4W |
| C7 | 87-014-049-080 | CAP,PP | 470P-100 J<HR> | CN12 | 87-099-854-010 | CONN,6P | S2M-6W |
| C8 | 87-012-349-080 | C-CAP,S | 1000P-50 CH | D3 | 87-A40-616-080 | VARI-CAP,SVC384 | (S/T) |
| C10 | 87-010-197-080 | CAP, CHIP | 0.01 DM | D4 | 87-A40-615-040 | VARI-CAP,KV1311NT | |
| C11 | 87-010-197-080 | CAP, CHIP | 0.01 DM | D5 | 87-A40-615-040 | VARI-CAP,KV1311NT | |
| C12 | 87-010-197-080 | CAP, CHIP | 0.01 DM | L2 | 88-CD6-655-010 | COIL,FM5MM*3.5T | |
| C13 | 87-010-150-080 | C-CAP,S | 6P-50 CH | L3 | 87-A91-095-010 | BAR-ANT,MW FOR | 2B(SYN)<HR> |
| C14 | 87-010-303-080 | C-CAP,S | 330P-50CH | L3 | 87-A91-096-010 | BAR-ANT,MW/LW FOR | 3B(SYN)<EZ> |
| C15 | 87-012-349-080 | C-CAP,S | 1000P-50 CH | L4 | 87-A50-420-010 | COIL,MW OSC(SYN) | |
| C16 | 87-010-380-080 | CAP, ELECT | 47-16V | L5 | 87-A50-424-010 | COIL,FM RF EX(SYN) | |
| C17 | 87-010-192-080 | C-CAP,S | 0.022-50 F | L6 | 87-A50-427-010 | COIL,FM OSC EX(SYN) | |
| C18 | 87-015-819-080 | CAPACITOR, | 0.01 | L7 | 87-A90-733-010 | FLTR,PCFAZH-450 | (TOK) |
| C19 | 87-010-112-080 | CAP, ELECT | 100-16V | L8 | 87-005-849-080 | COIL,10UH(CECS) | |
| C20 | 87-010-404-080 | CAP, ELECT | 4.7-50V | L9 | 87-005-849-080 | COIL,10UH(CECS) | |
| C21 | 87-010-197-080 | CAP, CHIP | 0.01 DM | L51 | 87-A50-421-010 | COIL,LW OSC(SYN)<EZ> | |
| C22 | 87-010-197-080 | CAP, CHIP | 0.01 DM | TC1 | 87-011-220-080 | TRIMMER CAP | 20P VTC |
| C23 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> | TC51 | 87-011-221-080 | TRIMER, | 30P<EZ> |
| C24 | 87-010-303-080 | C-CAP,S | 330P-50CH<EZ> | X1 | 87-A70-061-010 | VIB,XTAL | 4.500MHZ CSA-309 |
| C24 | 87-012-349-080 | C-CAP,S | 1000P-50 CH<HR> | LOADING MOTOR C.B | | | |
| C25 | 87-012-141-080 | C-CAP,S | 0.22-16 Z F C2012 | M1 | 87-045-305-010 | MOTOR,RF-500TB | DC-5V(2MA) |
| C26 | 87-010-197-080 | CAP, CHIP | 0.01 DM<EZ> | S1 | 87-036-110-019 | PUSH SWITCH | |
| C27 | 87-A10-484-080 | C-CAP,S | 1.0U-10 K B | S2 | 87-036-110-019 | PUSH SWITCH | |
| C28 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25 | CD MOTOR C.B | | | |
| C29 | 87-010-196-080 | CHIP CAPACITOR, | 0.1-25 | M2 | 87-045-358-019 | MOT,RF-310TA | 43 |
| C30 | 87-010-213-080 | C-CAP,S | 0.015-50 B | M3 | 87-045-356-019 | MOT,RF-310T | 30 |
| C31 | 87-010-213-080 | C-CAP,S | 0.015-50 B | S1 | 87-A90-042-010 | SW,LEAF MSW | 17310 MVPO |
| C33 | 87-010-401-080 | CAP, ELECT | 1-50V | DECK C.B | | | |
| C34 | 87-010-401-080 | CAP, ELECT | 1-50V | S2 | 87-A90-248-019 | SW,MICRO ESE11SH2CXQ | |
| C35 | 87-015-819-080 | CAPACITOR, | 0.01 | S3 | 87-A90-248-019 | SW,MICRO ESE11SH2CXQ | |
| C36 | 87-010-112-080 | CAP, ELECT | 100-16V | S5 | 87-A90-248-019 | SW,MICRO ESE11SH2CXQ | |
| C37 | 87-010-197-080 | CAP, CHIP | 0.01 DM | S6 | 87-A90-248-019 | SW,MICRO ESE11SH2CXQ | |
| C38 | 87-010-380-080 | CAP, ELECT | 47-16V | SFR1 | 87-024-581-019 | SFR,3,3K DIA6V | KOA |
| C39 | 87-010-404-080 | CAP, ELECT | 4.7-50V | SOL2 | 82-ZM1-618-410 | SOL ASSY, | 27 |
| C40 | 87-010-197-080 | CAP, CHIP | 0.01 DM | | | | |
| C41 | 87-012-349-080 | C-CAP,S | 1000P-50 CH | | | | |
| C42 | 87-012-349-080 | C-CAP,S | 1000P-50 CH | | | | |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------|-----------|-------------|
|---------|----------|-----------|-------------|

RELAY C.B

| | | |
|--------|----------------|-------------------|
| CON301 | 88-CD5-635-010 | CONN ASSY, 7P RPH |
|--------|----------------|-------------------|

POWER C.B

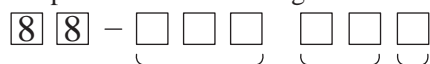
| | | |
|--------|----------------|-----------------------|
| CON501 | 88-CD5-636-010 | CONN ASSY, 3P PT |
| △F701 | 87-035-190-010 | FUSE, 2AT<HR> |
| △F701 | 87-035-139-010 | FUSE, 2.5A T 250V<EZ> |
| △FC701 | 87-A90-160-080 | FUSE CLAMP, FC 51F |
| △FC702 | 87-A90-160-080 | FUSE CLAMP, FC 51F |

BATT C.B

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



A
抵抗部品コード
Resistor Code

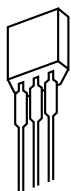
桁表示
Figure

抵抗値
Value of resistor

チップ抵抗
Chip resistor

| 容量 Wattage | 種類 Type | 許容誤差 Tolerance | 記号 Symbol | 寸法/Dimensions (mm) | | | | 抵抗コード : A Resistor Code : A |
|---------------|------------|-------------------|--------------|--------------------|-----|------|------|--------------------------------|
| | | | | 外形/Form | L | W | t | |
| 1/16W | 1005 | ± 5% | CJ | | 1.0 | 0.5 | 0.35 | 104 |
| 1/16W | 1608 | ± 5% | CJ | | 1.6 | 0.8 | 0.45 | 108 |
| 1/10W | 2125 | ± 5% | CJ | | 2 | 1.25 | 0.45 | 118 |
| 1/8W | 3216 | ± 5% | CJ | | 3.2 | 1.6 | 0.55 | 128 |

TRANSISTOR ILLUSTRATION



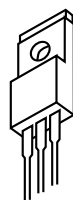
ECB

2SA933
2SA1993
2SC1740
DTA114YS
DTA144TS
DTC114ES
DTC114TS
DTC114YS
DTC124XS
DTC144TS
RT1N441



ECB

2SA952
2SA1296
2SA1318
2SC1815
2SC1923
2SC2001
CC5551
KTC3198



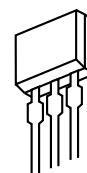
BCE

2SB1370



GSD

2SK439

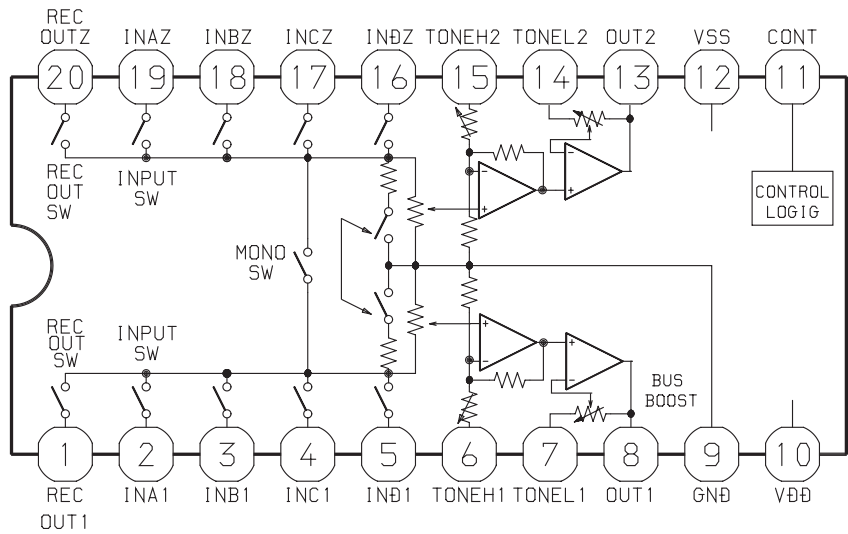


SDG

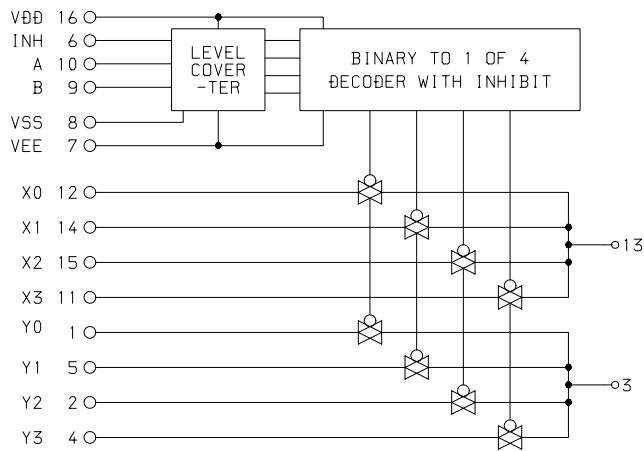
2SK2541

IC BLOCK DIAGRAMS

IC, M62439SP

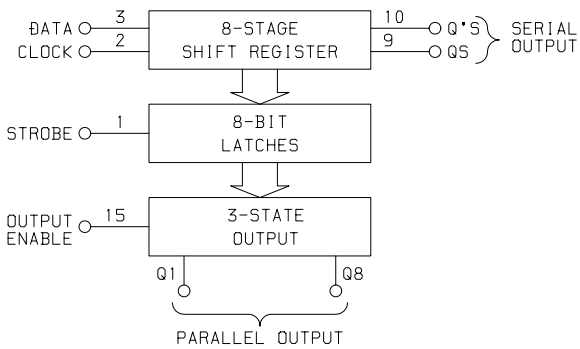


IC, BU4052BC

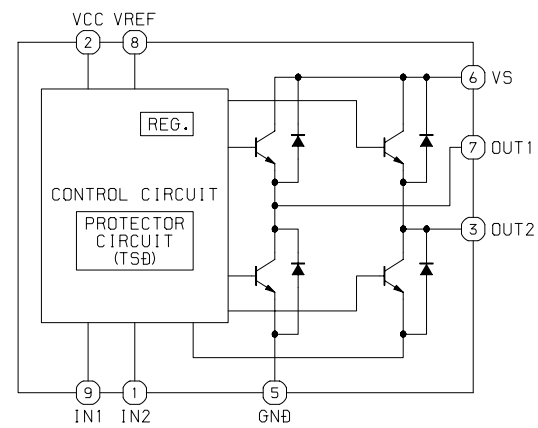


TRUTH TABLE

| INHIBIT | A | B | ON SWITCH |
|---------|---|---|-----------|
| L | L | L | X0 Y0 |
| L | H | L | X1 Y1 |
| L | L | H | X2 Y2 |
| L | H | H | X3 Y3 |
| H | X | X | NONE |



IC, TA7291S

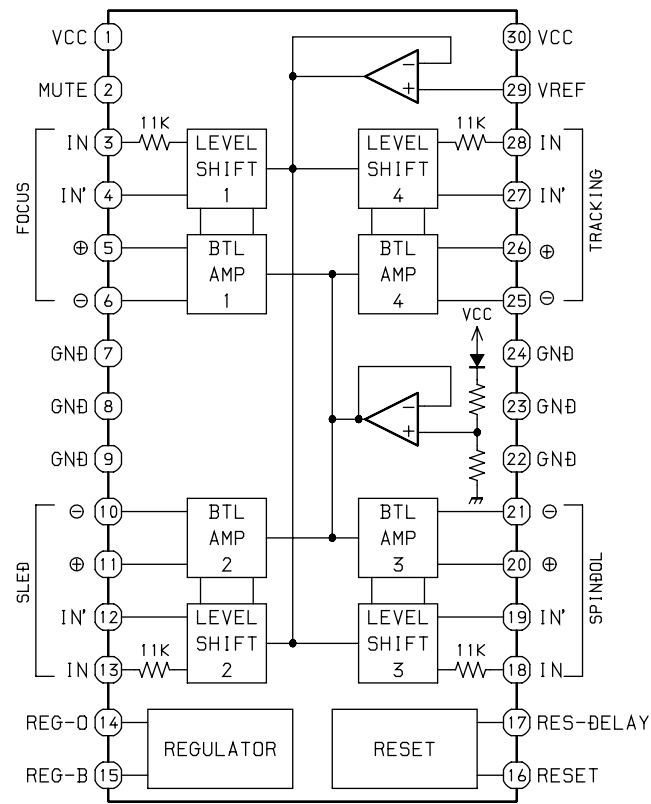


TRUTH TABLE

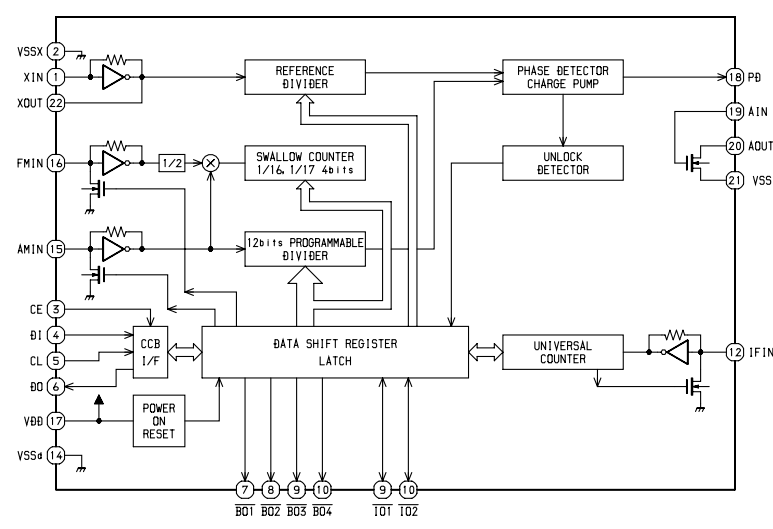
| INPUT | | OUTPUT | | MODE |
|-------|-----|--------|------|--------|
| IN1 | IN2 | OUT1 | OUT2 | |
| 0 | 0 | ∞ | ∞ | STOP |
| 1 | 0 | H | L | CW/CCW |
| 0 | 1 | L | H | CCW/CW |
| 1 | 1 | L | L | BRAKE |

∞ :HIGH IMPEDACE
INPUT IS "H" ACITVE

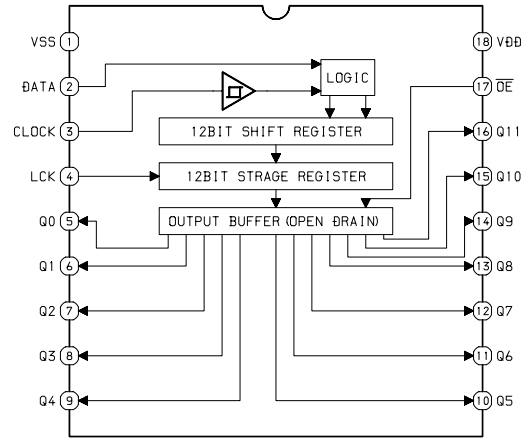
IC, LA6541D



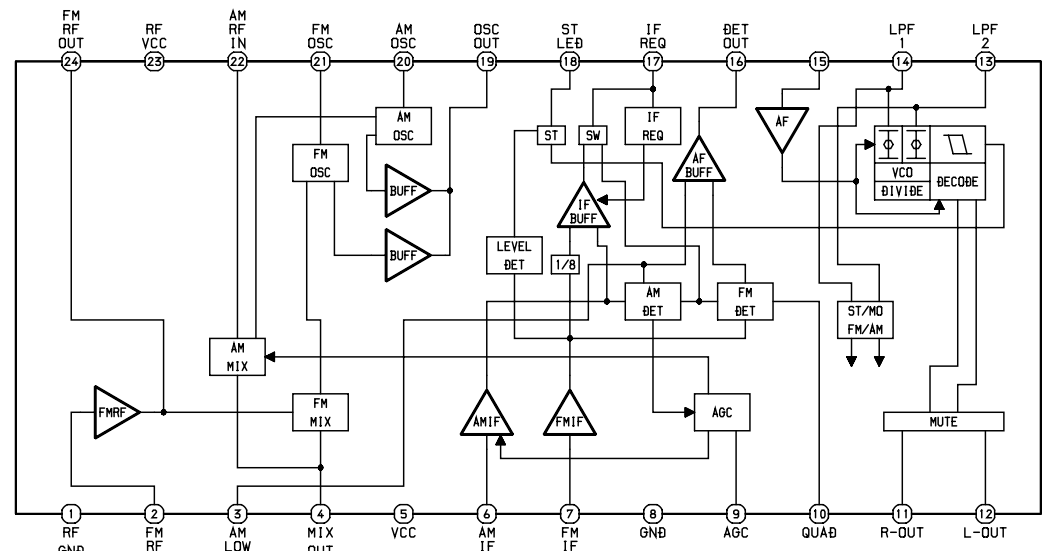
IC, LC72121M



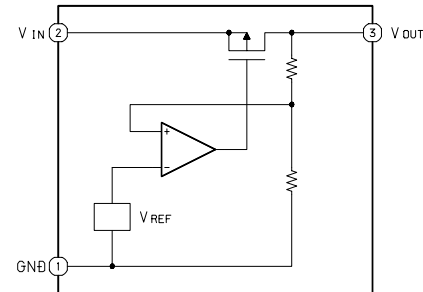
IC, BU2092



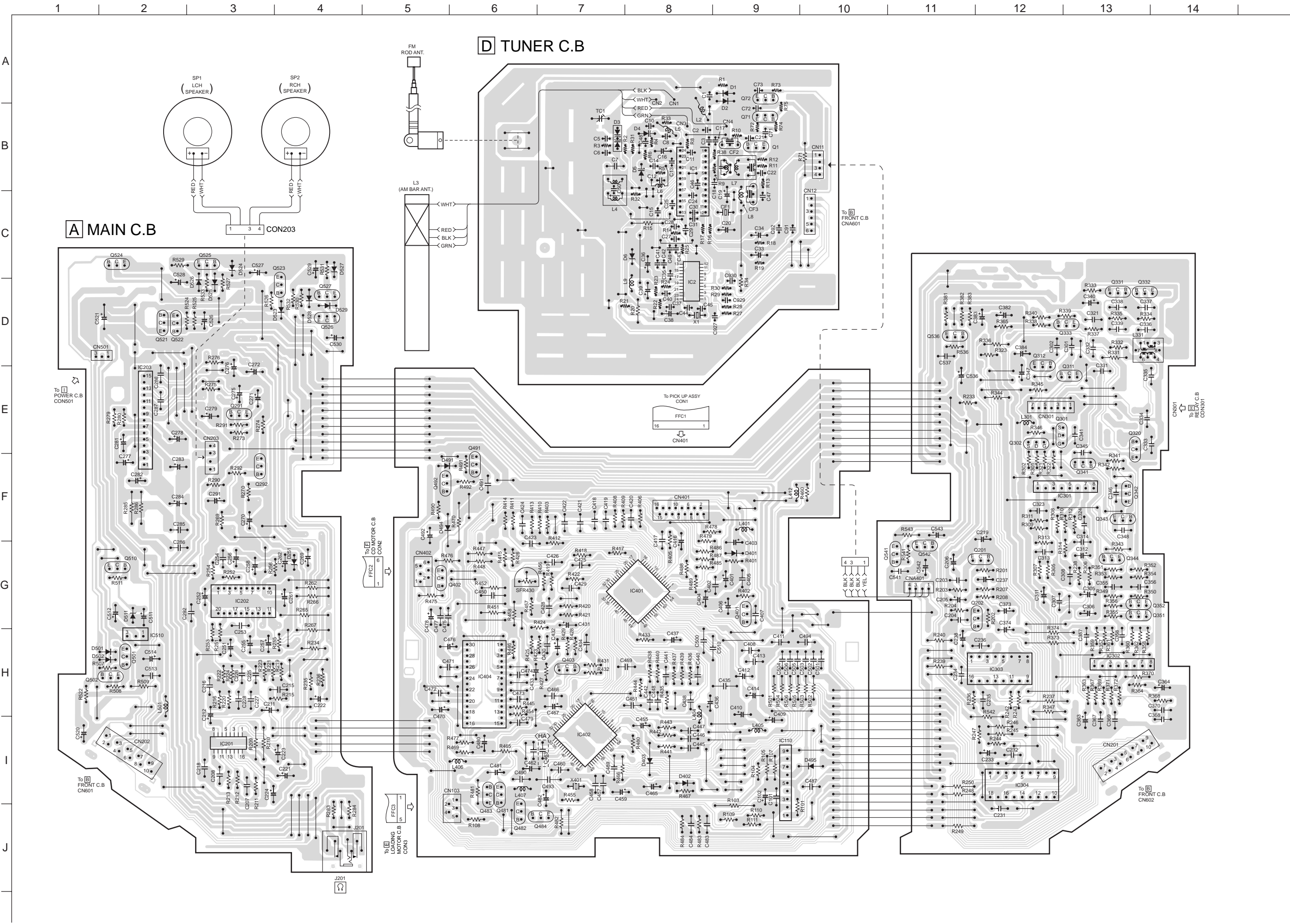
IC, TA2104AN



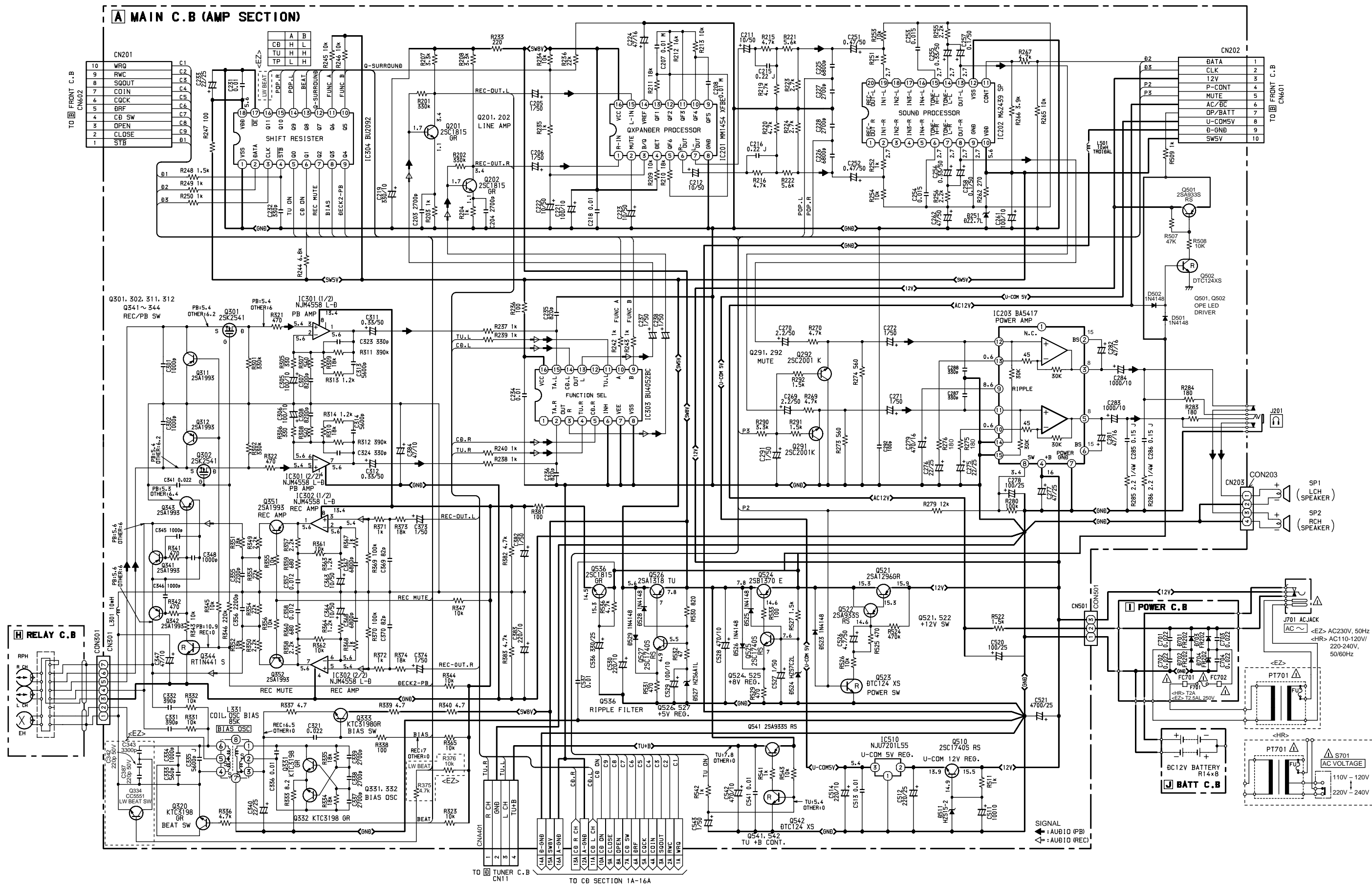
IC, NJU7201L55

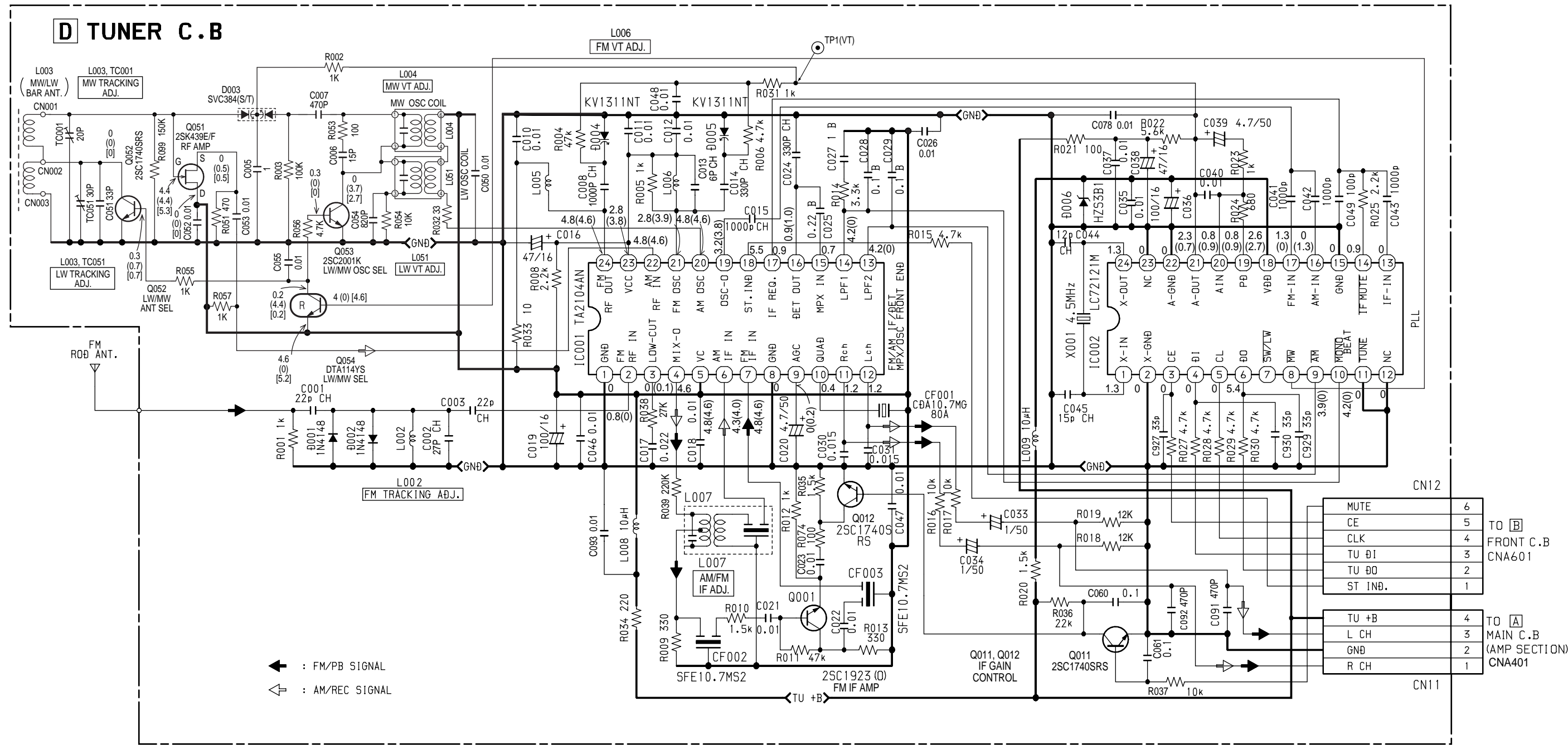


WIRING-1 (MAIN, TUNER SECTION) <HR Model>

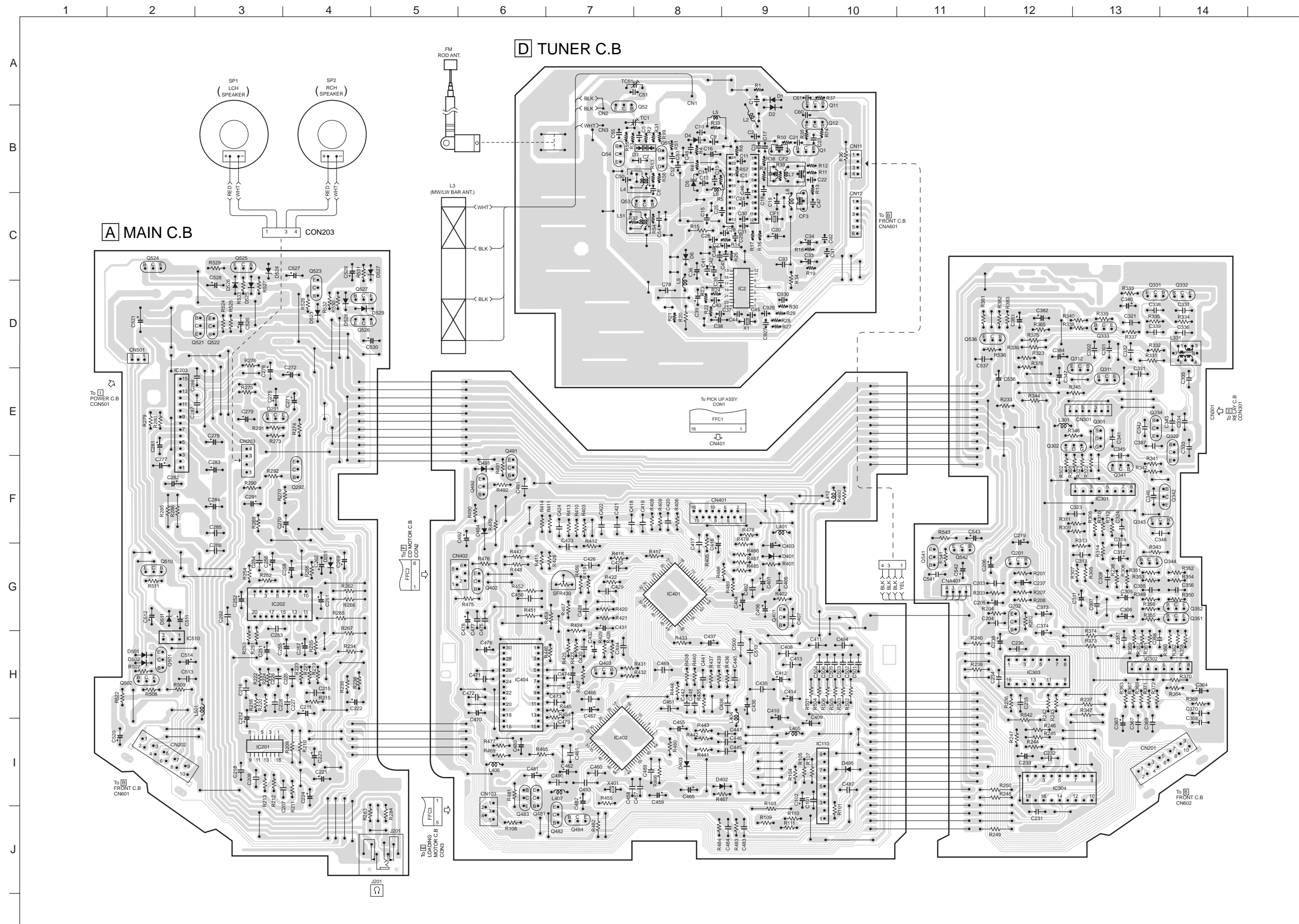


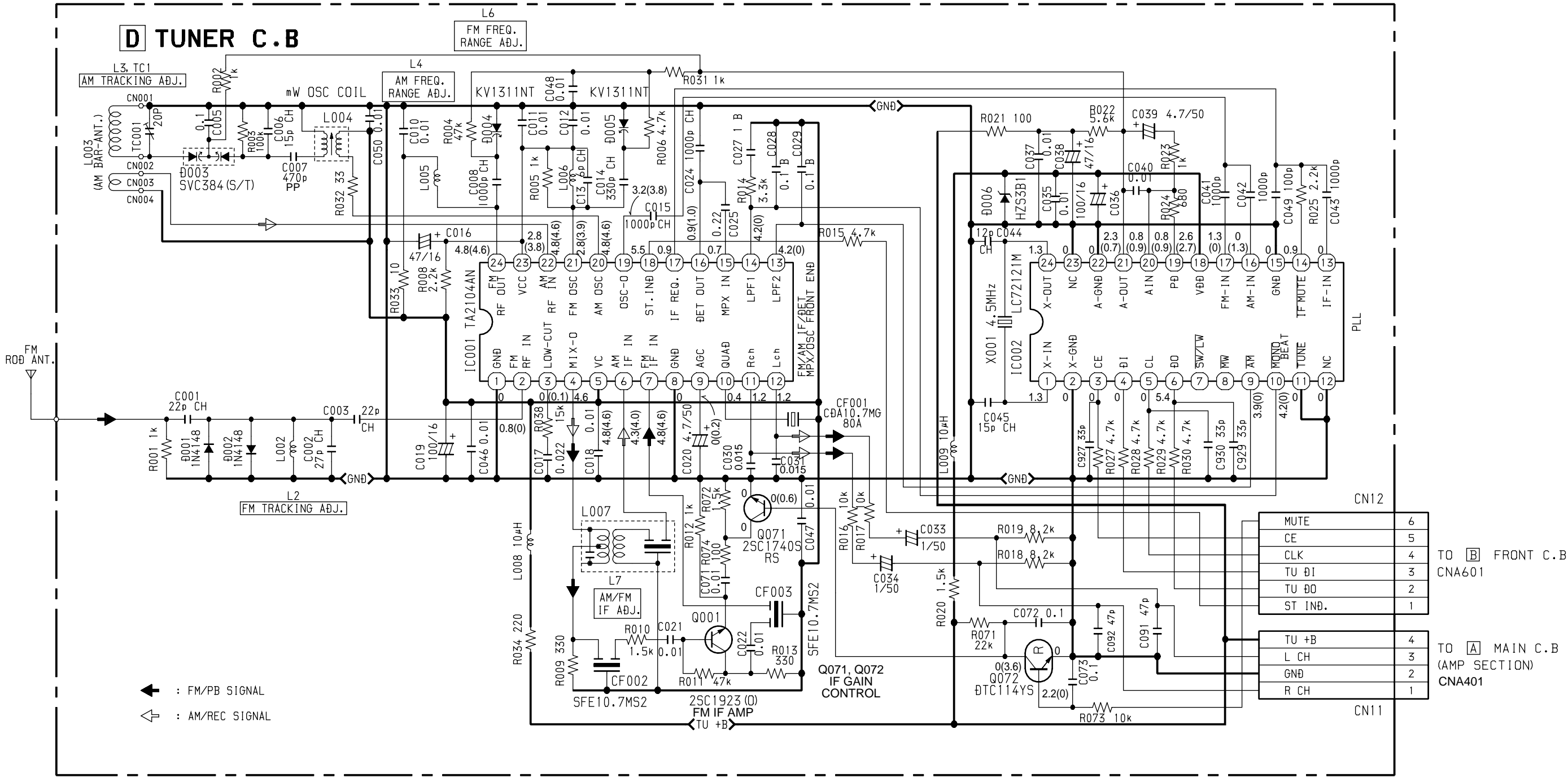
SCHEMATIC DIAGRAM-1 (MAIN-AMP SECTION)



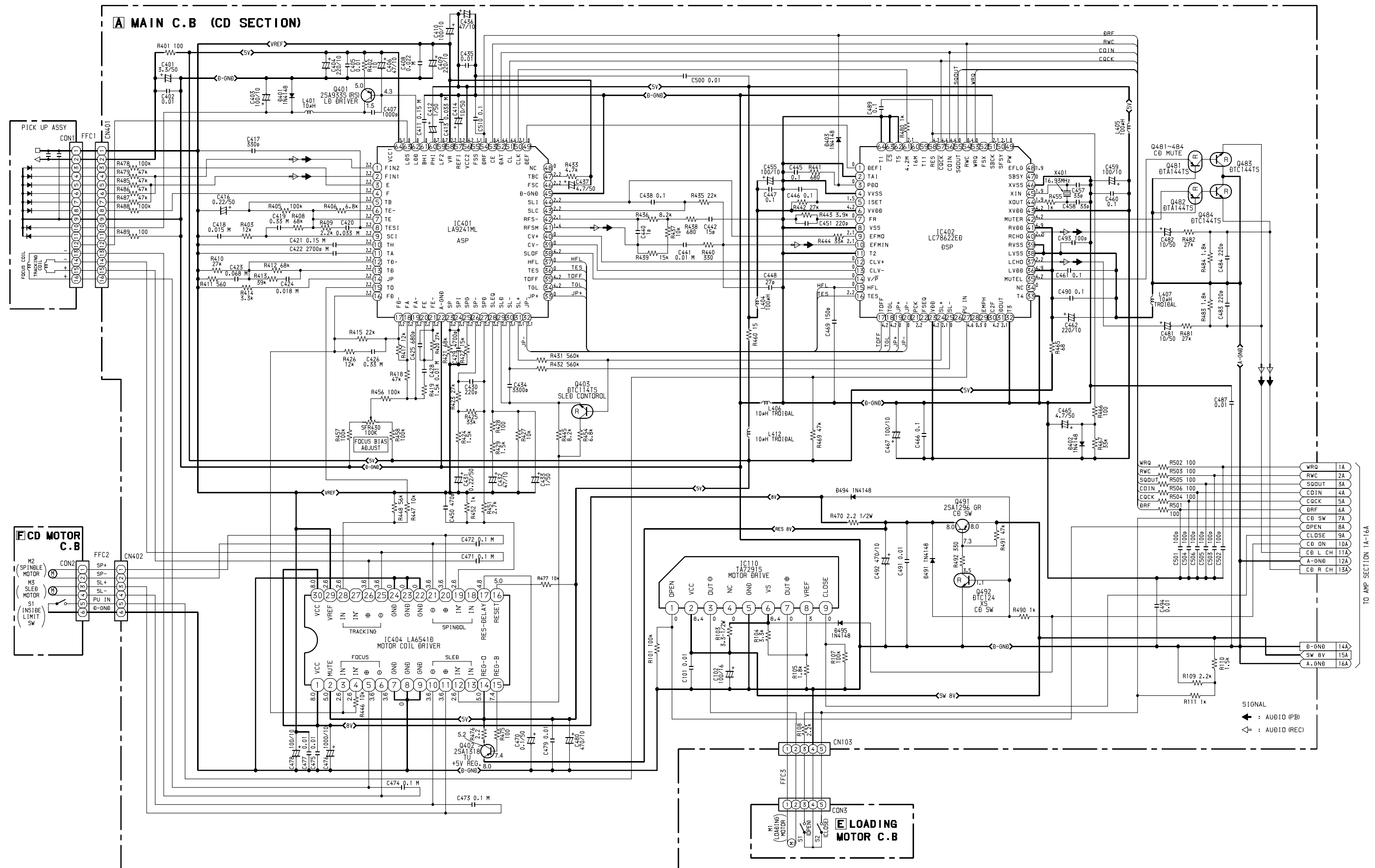


WIRING-2 (MAIN, TUNER SECTION) <EZ Model>

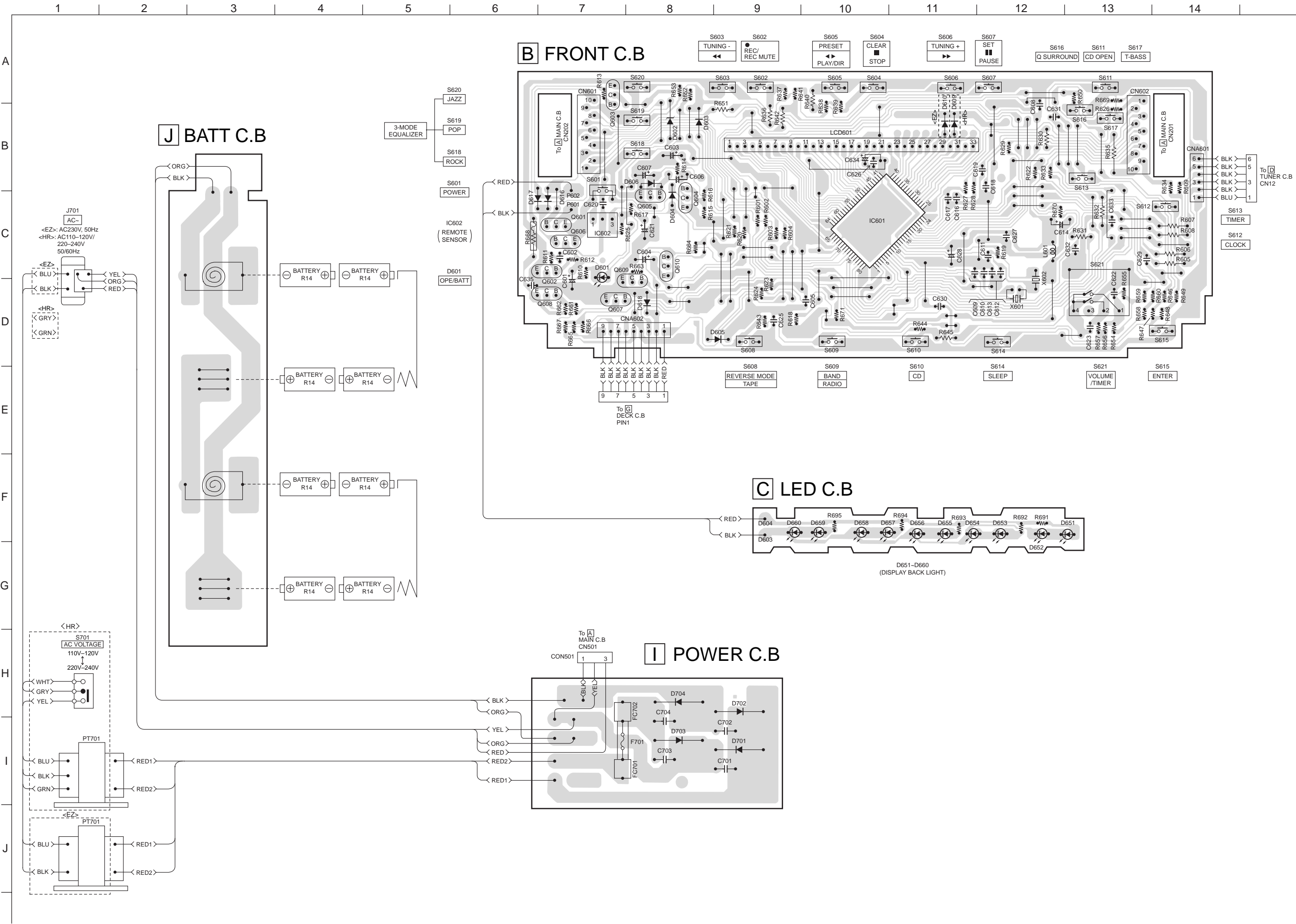




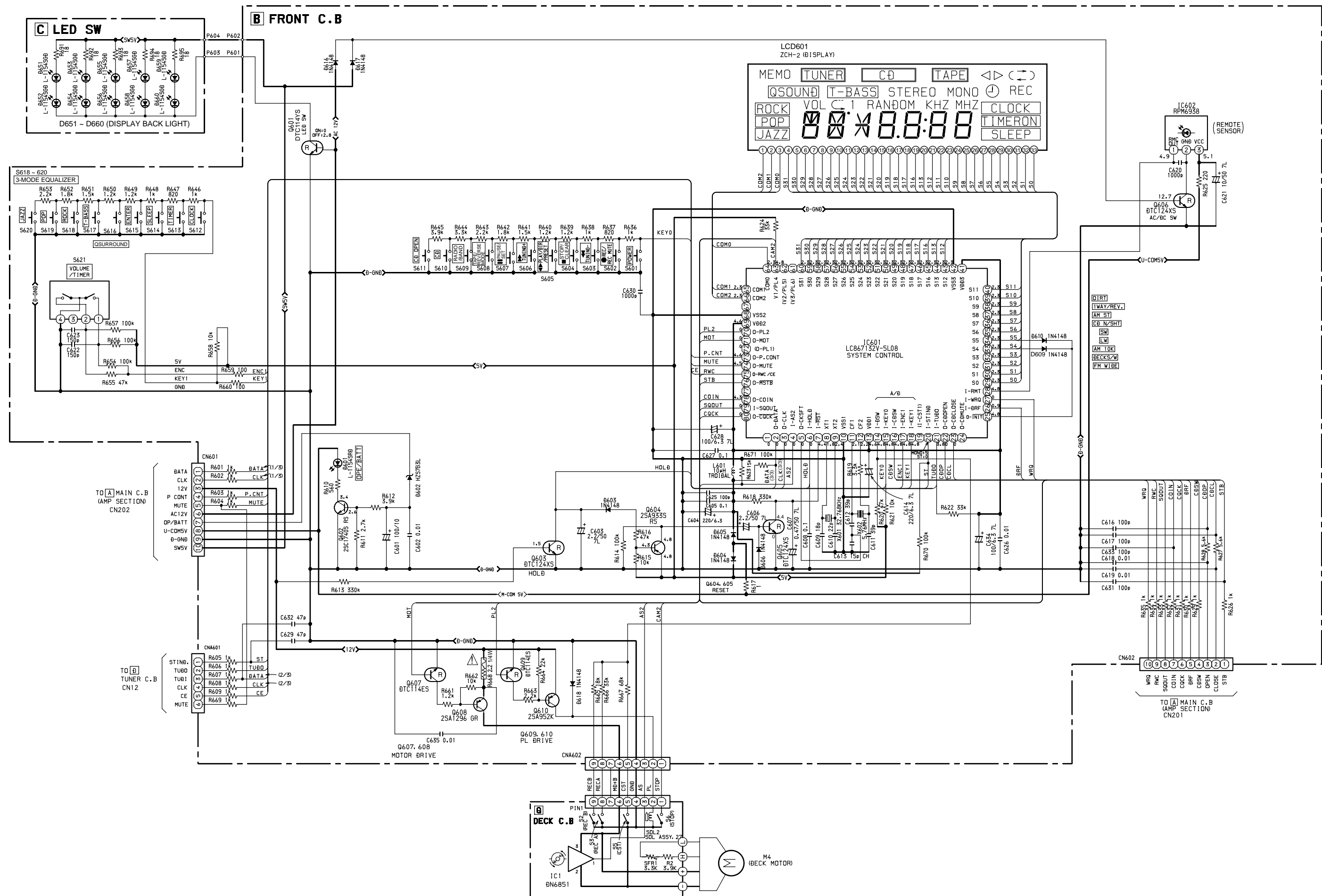
SCHEMATIC DIAGRAM-4 (MAIN-CD SECTION)

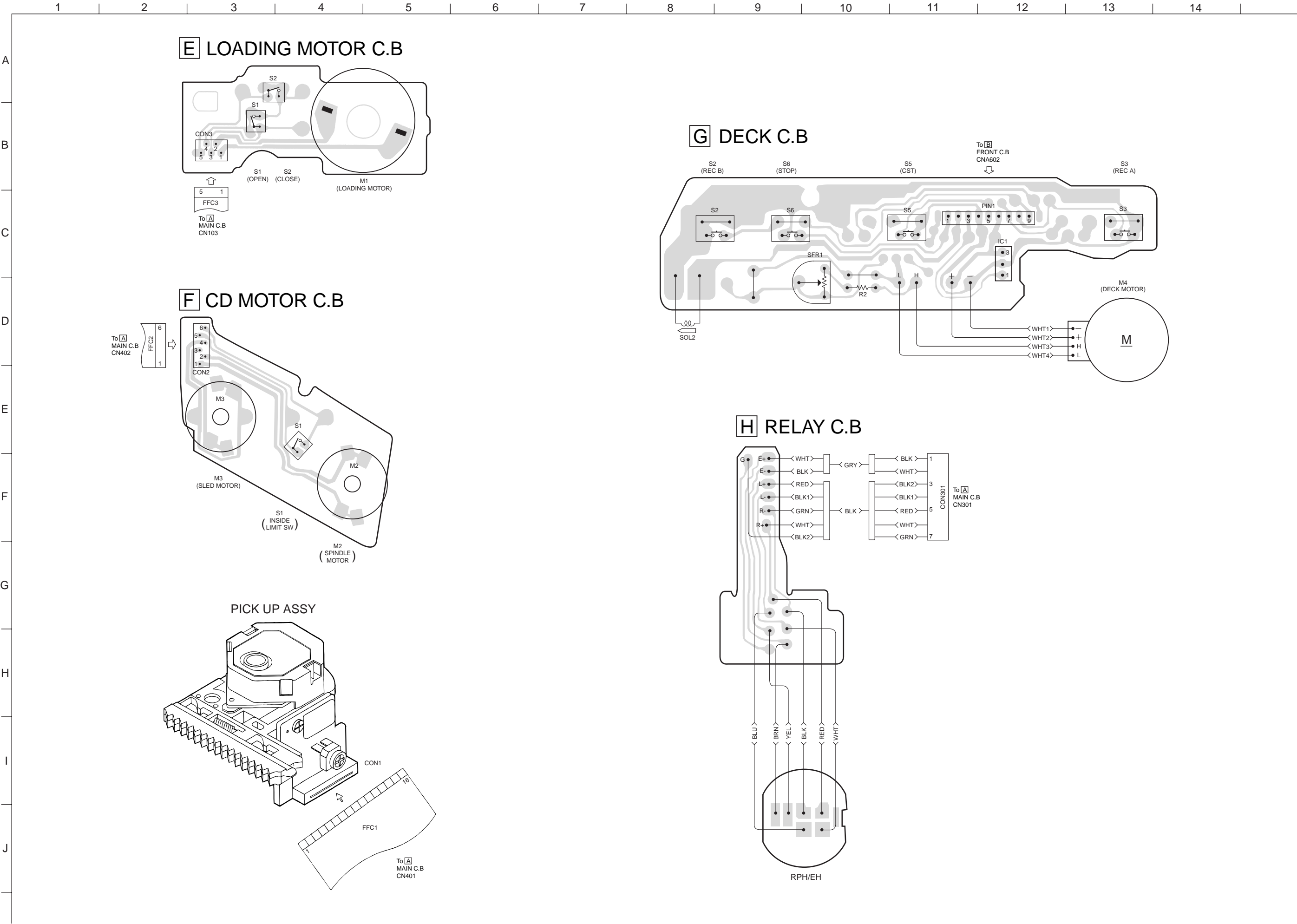


WIRING-3 (FRONT, POWER SECTION)



SCHEMATIC DIAGRAM-5 (FRONT SECTION)





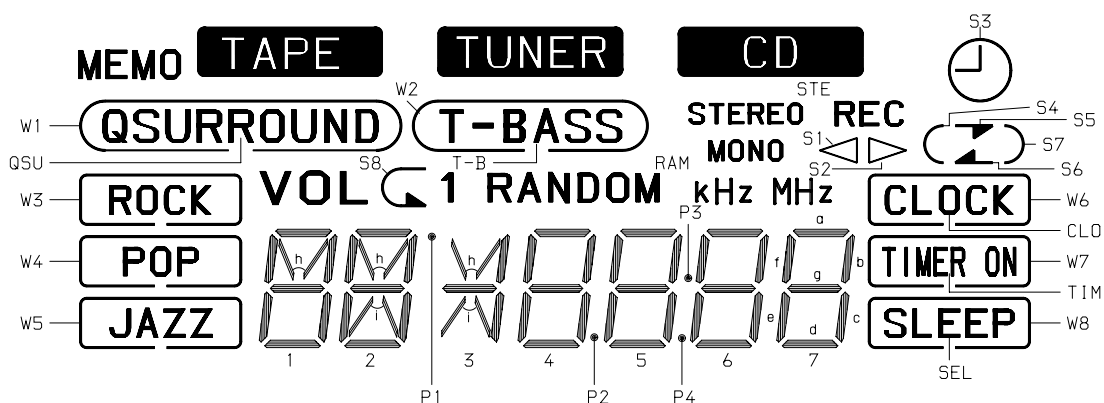
IC DESCRIPTION-1

IC, LC867132V-5L08

| Pin No. | Pin Name | I/O | Description |
|---------|-----------------------------|-----|----------------------------------------------------------|
| 1 | – | – | Not connected. |
| 2 | O-DATA | O | Data for shift register 2092, PLL LC72121 and IC M62439. |
| 3 | O-CLK | O | Clock for shift register 2092 and PLL LC72121. |
| 4 | I-AS2 | I | Strobe of shift register 2092 |
| 5 | O-CKSFT | O | Clock shift output for system microprocessor |
| 6 | I-HOLD | I | Hold status detection. "H": HOLD |
| 7 | I- $\overline{\text{RST}}$ | I | Microprocessor reset. ("L" when reset) |
| 8 | XT1 | I | Connected to 32.768kHz crystal. |
| 9 | XT2 | O | |
| 10 | VSS1 | – | GND |
| 11 | CF1 | I | Connected to 6 MHz ceramic lock. |
| 12 | CF2 | O | |
| 13 | VDD1 | – | Microprocessor power supply (μ -com 5 V). |
| 14 | I-DSW | I | Detect CD changer state. (AD input) |
| 15 | I-KEY0 | I | Key AD input. |
| 16 | I-CDSW | I | CD tray open/close status detection input (AD) |
| 17 | I-ENC1 | I | AD value input of rotary encoder outputs A and B |
| 18 | I-KEY1 | I | KEY AD input. |
| 19 | I-CST1 | – | Not connected. |
| 20 | I-STIND | I | Tuner stereo indicator input. |
| 21 | I-TUDO | I | Data input from tuner LC72121. |
| 22 | O-CDOPEN | O | CD tray open control output. |
| 23 | O-CDCLOSE | O | CD tray close control output. |
| 24 | O-CDMUTE | O | CD muting output. |
| 25 | O- $\overline{\text{INIT}}$ | O | Initial diode matrix detection output. |
| 26 | I-DRF | I | CD (DETECT RF) RE level detection input. |
| 27 | I-WRQ | I | CD subcode Q standby input. |
| 28 | I-RMT | I | Remote input. |
| 29 ~ 40 | S0 ~ S11 | O | LCD common output. |
| 41 | VDD3 | – | Microprocessor power supply (μ -com 5 V). |
| 42 | VSS3 | – | GND |
| 43 ~ 44 | S12 ~ S13 | O | LCD segment outputs. |
| 45 ~ 60 | S16 ~ S31 | O | LCD segment outputs. |
| 61 | (V3/PL6) | – | Not connected. |
| 62 | (V2/PL5) | – | Not connected. |
| 63 | V1/PL4 | I | DECK mechanism status detection input. |
| 64 ~ 66 | COM0 ~ COM2 | O | LCD common outputs. |
| 67 | – | – | Not connected. |
| 68 | VSS2 | – | GND |
| 69 | VDD2 | – | Microprocessor power supply. |
| 70 | O-PL2 | O | Single DECK & DECK 2 plunger control output. |

| Pin No. | Pin Name | I/O | Description |
|---------|-----------|-----|--------------------------------------------------|
| 71 | O-MOT | O | DECK mechanism motor control output. |
| 72 | O-PL1 | — | Not connected. |
| 73 | O-P. CONT | O | Unit power control output. |
| 74 | O-MUTE | O | Main muting output. |
| 75 | O-RWC/CE | O | CD read/write control output and TU chip enable. |
| 76 | O-MSTB | O | Strobe of shift register 2092. |
| 77 | — | — | Not connected. |
| 78 | O-COIN | O | CD command output. |
| 79 | I-SQOUT | I | CD subcode Q input. |
| 80 | D-CQCK | O | Clock for CD command and subcode. |

FL GRID ASSIGNMENT AND ANODE CONNECTION



ANODE CONNECTION

| NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|------|------|------|------|-------|------|------|----|-----|----|----|----|----|----|-----|-----|-------|----|
| COM1 | COM1 | --- | --- | TAPE | W1 | ROCK | W3 | QSU | 1h | 1a | 2f | 2h | 2a | VOL | T-B | 1 | W2 |
| COM2 | --- | COM2 | --- | TUNER | MEMO | POP | W4 | 1f | 1g | 1b | 2e | 2g | 2b | S8 | 3h | 3b, c | 4f |
| COM3 | --- | --- | COM3 | CD | --- | JAZZ | W5 | 1e | 1d | 1c | 2d | 2i | 2c | P1 | 3i | 3g | 4g |

| NO | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
|------|----|----|-----|----|----|----|----|-----|-----|----|----|----|-----|-----|----|------|
| COM1 | 4a | 4b | RAN | 5a | 5b | 6f | 6a | KHz | MHz | 7a | S3 | W6 | CL0 | REC | S2 | STE |
| COM2 | 4g | 4c | 5f | 5g | 5c | 6e | 6g | 6b | 7f | 7g | 7b | W7 | TIM | S6 | S4 | MONO |
| COM3 | 4d | P2 | 5E | 5d | P3 | P4 | 6d | 6c | 7E | 7d | 7c | W8 | SLE | S5 | S7 | S1 |

IC, LC78622ED

| Pin No. | Pin Name | I/O | Description | |
|---------|------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1 | DEFI | I | Defect sense signal (DEF) input pin. (Connect to 0V when not used). | |
| 2 | TAI | I | For PLL. | Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V. |
| 3 | PDO | O | | Phase comparator output pin to control external VCO. |
| 4 | VVSS | — | | GND pin for built-in VCO. Be sure to connect to 0V. |
| 5 | ISSET | I | | Pin to which external resistor adjusting the PDO output current. |
| 6 | VVDD | — | | Power supply pin for built-in VCO. |
| 7 | FR | I | | Pin for VCO frequency range adjustment. |
| 8 | VSS | — | Digital system GND. Be sure to connect to 0V. | |
| 9 | EFMO | O | For slice level control. | EFM signal output pin. |
| 10 | EFMIN | I | | EFM signal input pin. |
| 11 | T2 | I | Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V. | |
| 12, 13 | CLV+, CLK– | O | Disc motor control output. Three level output is possible using command. | |
| 14 | V/P | O | Rough servo or phase control automatic selection monitoring output pin. Rough servo at H. Phase servo at L. | |
| 15 | HFL | I | Track detect signal input pin. Schmidt input. | |
| 16 | TES | I | Tracking error signal input pin. Schmidt input. | |
| 17 | TOFF | O | Tracking OFF output pin. | |
| 18 | TGL | O | Tracking gain selection output pin. Gain boost at L. | |
| 19, 20 | JP+, JP– | O | Track jump control signal output pin. Three level output is possible using command. | |
| 21 | PCK | O | EFM data playback clock monitoring pin 4.3218 MHz when phase is locked in. | |
| 22 | FSEQ | O | Sync signal detection output pin. H when the sync signal which is detected from EFM signal and thesync signal which is internally generated agree. | |
| 23 | VDD | — | Digital system power supply pin. | |
| 24 | SL+ | O | Moves the sled to outer circumference. | |
| 25 | SL– | O | Moves the sled to inner circumference. | |
| 26 | — | — | Not connected. | |
| 27 | PUIN | I | CD pickup inner switch detection. | |
| 28 | — | — | Not connected. | |
| 29 | EMPH | O | De-emphasis monitor output pin. De-emphasis disc is being played back at H. | |
| 30 | C2F | O | C2 flag output pin. | |
| 31 | DOUT | O | DIGITAL OUT output pin. (EIAJ format). | |
| 32, 33 | T3, T4 | I | Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V. | |
| 34 | N.C. | — | Not used. Set the pin to open. | |
| 35 | MUTEL | O | L-channel 1-bit DAC. | L-channel mute output pin. |
| 36 | LVDD | — | | L-channel power supply pin. |
| 37 | LCHO | O | | L-channel output pin. |
| 38 | LVSS | — | | L-channel GND. Be sure to connect to 0V. |
| 39 | RVSS | — | R-channel 1-bit DAC. | R-channel GND. Be sure to connect to 0V. |
| 40 | RCHO | O | | R-channel output pin. |
| 41 | RVDD | — | | R-channel power supply pin. |
| 42 | MUTER | O | | R-channel mute output pin. |

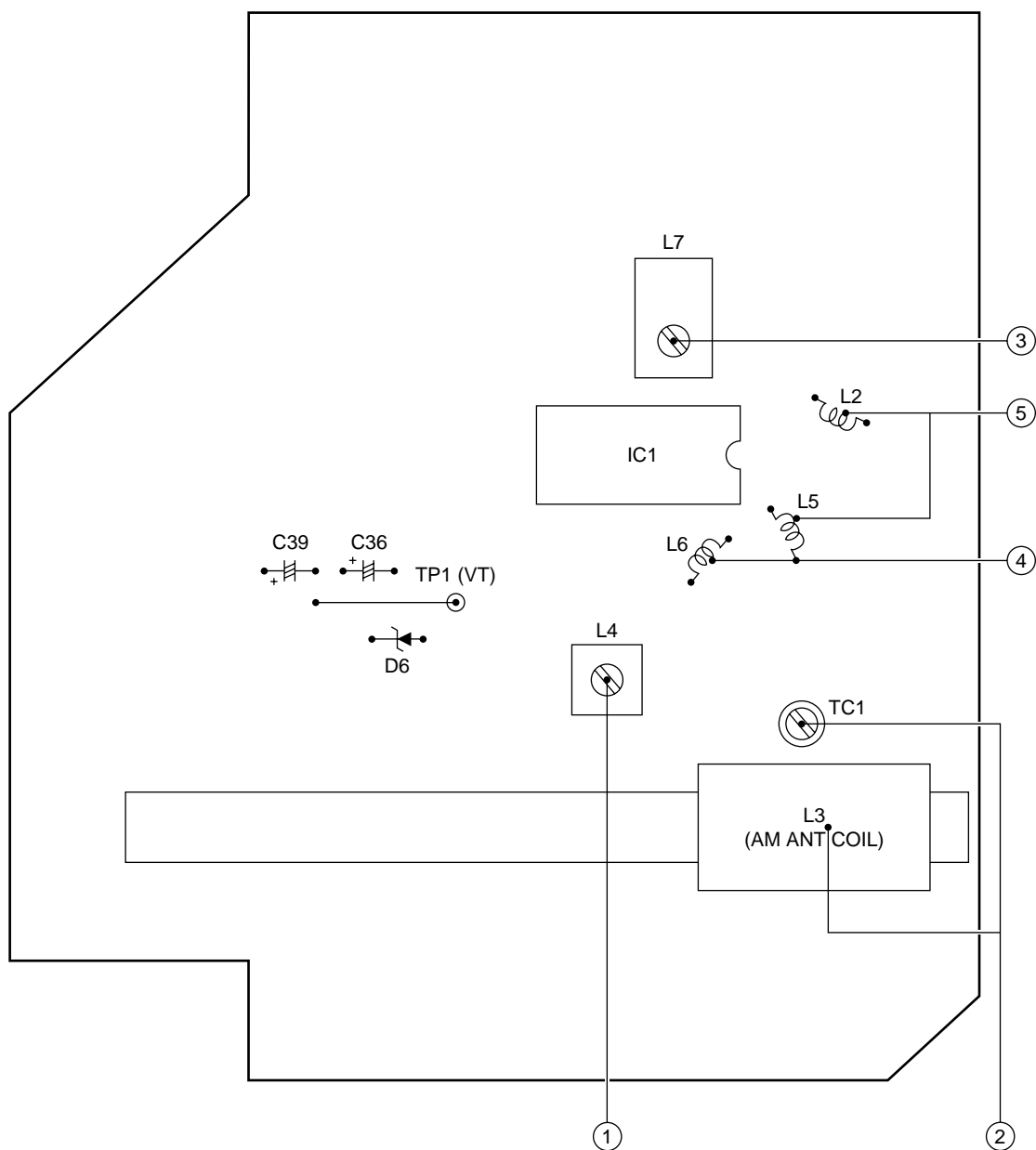
| Pin No. | Pin Name | I/O | Description |
|---------|--------------------------|-----|----------------------------------------------------------------------------------------------------------------------|
| 43 | XVDD | — | Crystal oscillator power supply pin. |
| 44 | XOUT | O | Pin to which external 16.9344 MHz crystal oscillator is connected. |
| 45 | XIN | I | |
| 46 | XVSS | — | Crystal oscillator GND pin. Be sure to connect to 0V. |
| 47 | SBSY | O | Subcode block sync signal output pin. |
| 48 | EFLG | O | C1, C2, single and dual correction monitoring pin. |
| 49 | PW | O | Subcode P, Q, R, S, T, U and W output pin. |
| 50 | SFSY | O | Subcode frame sync signal output pin. Falls down when subcode enters standby. |
| 51 | SBCK | I | Subcode read clock input pin. Schmidt input. (Be sure to connected to 0V when not in use.) |
| 52 | FSX | O | Pin outputting the 7.35 kHz sync signal which is generated by dividing frequency of crystal oscillator. |
| 53 | WRQ | O | Subcode Q output standby output pin. |
| 54 | RWC | I | Read/write control input pin. Schmidt input. |
| 55 | SQOUT | O | Subcode Q output pin. |
| 56 | COIN | I | Command input pin from microprocessor. |
| 57 | $\overline{\text{CQCK}}$ | I | Command input read clock or subcode read input clock from SQOUT pin |
| 58 | $\overline{\text{RES}}$ | I | LC78622 reset input pin. Set this pin to L once when the main power is turned on. |
| 59 | T11 | O | Test signal output pin. Use this pin as open (normally L output). |
| 60 | 16M | O | 16.9344 MHz output pin. |
| 61 | 4.2M | O | 4.2336 MHz output pin. |
| 62 | T5 | I | Test signal input pin with built-in pull-down resistor. Be sure to connect to 0V. |
| 63 | $\overline{\text{CS}}$ | I | Chip select signal input pin with built-in pull-down resistor. Be sure to connect to 0V while it is not controlling. |
| 64 | T1 | I | Test signal input pin without built-in pull-down resistor. Be sure to connect to 0V. |

IC, LA9241ML

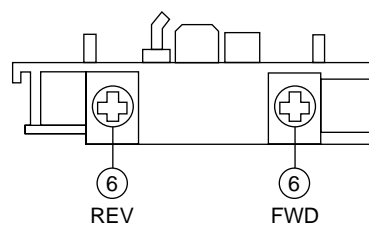
| Pin No. | Pin Name | I/O | Description |
|---------|----------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | FIN2 | I | Pin to which external pickup photo diode is connected. RF signal is created by adding with the FIN1 pin signal. FE signal is created by subtracting from the FIN1 pin signal. |
| 2 | FIN1 | I | Pin to which external pickup photo diode is connected. |
| 3 | E | I | Pin to which external pickup photo diode is connected. TE signal is created by subtracting from the F pin signal. |
| 4 | F | I | Pin to which external pickup photo diode is connected. |
| 5 | TB | I | DC component of the TE signal is input. |
| 6 | TE– | I | Pin to which external resistor setting the TE signal gain is connected between the TE pin. |
| 7 | TE | O | TE signal output pin. |
| 8 | TESI | I | TES “Track Error Sense” comparator input pin. TE signal is passed through a band-pass filter then input. |
| 9 | SCI | I | Shock detection signal input pin. |
| 10 | TH | I | Tracking gain time constant setting pin. |
| 11 | TA | O | TA amplifier output pin. |
| 12 | TD– | I | Pin to which external tracking phase compensation constants are connected between the TD and VR pins. |
| 13 | TD | I | Tracking phase compensation setting pin. |
| 14 | JP | I | Tracking jump signal (kick pulse) amplitude setting pin. |
| 15 | TO | O | Tracking control signal output pin. |
| 16 | FD | O | Focusing control signal output pin. |
| 17 | FD– | I | Pin to which external focusing phase compensation constants are connected between the FD and FA pins. |
| 18 | FA | I | Pin to which external focusing phase compensation constants are connected between the FD– and FA– pins. |
| 19 | FA– | I | Pin to which external focusing phase compensation constants are connected between the FA and FE pins. |
| 20 | FE | O | FE signal output pin. |
| 21 | FE– | I | Pin to which external FE signal gain setting resistor is connected between the FE pin. |
| 22 | A-GND | — | Analog signal GND. |
| 23 | SP | O | Single ended output of the CV+ and CV– pin input signal. |
| 24 | SPI | I | Spindle amp input |
| 25 | SPG | I | Pin to which external spindle gain setting resistor in 12 cm mode is connected. |
| 26 | SP– | I | Pin to which external spindle phase compensation constants are connected together with SPD pin. |
| 27 | SPD | O | Spindle control signal output pin. |
| 28 | SLEQ | I | Pin to which external sled phase compensation constants are connected. |
| 29 | SLD | O | Sled control signal output pin. |
| 30, 31 | SL–, SL+ | I | Sled advance signal input pin from microprocessor. |
| 32, 33 | JP–, JP+ | I | Tracking jump signal input pin from DSP. |
| 34 | TGL | I | Tracking gain control signal input from DSP. Low gain when TGL = H. |
| 35 | TOFF | I | Tracking off control signal input pin from DSP. Off when TOFF = H. |

| Pin No. | Pin Name | I/O | Description |
|---------|----------|-----|--------------------------------------------------------------------------------------------------------------|
| 36 | TES | O | Pin from which TES signal is output to DSP. |
| 37 | HFL | O | “High Frequency Level” is used to judge whether the main beam position is on top of bit or on top of mirror. |
| 38 | SLOF | I | Sled servo off control input pin. |
| 39, 40 | CV–, CV+ | I | CLV error signal input pin from DSP. |
| 41 | RFSM | O | RF output pin. |
| 42 | RFS– | I | RF gain setting and EFM signal 3T compensation constant setting pin together with RFSM pin. |
| 43 | SLC | O | “Slice Level Control” is the output pin which controls the RF signal data slice level by DSP. |
| 44 | SLI | I | Input pin which control the data slice level by the DSP. |
| 45 | D-GND | — | Digital system GND. |
| 46 | FSC | O | Output pin to which external focus search smoothing capacitor is connected. |
| 47 | TBC | I | “Tracking Balance Control” EF balance variable range setting pin. |
| 48 | NC | — | No connection. |
| 49 | DEF | O | Disc defect detector output pin. |
| 50 | CLK | I | Reference clock input pin. 4.23 MHz of the DSP is input. |
| 51 | CL | I | Microprocessor command clock input pin. |
| 52 | DAT | I | Microprocessor command data input pin. |
| 53 | CE | I | Microprocessor command chip enable input pin. |
| 54 | DRF | O | “Detect RF” RF level detector output. |
| 55 | FSS | I | “Focus Search Select” focus search mode (\pm search/+ search) select pin. |
| 56 | VCC2 | — | Servo system and digital system Vcc pin. |
| 57 | REFI | — | Pin to which external bypass capacitor for reference voltage is connected. |
| 58 | VR | O | Reference voltage output pin. |
| 59 | LF2 | I | Disc defect detector time constant setting pin. |
| 60 | PH1 | I | Pin to which external capacitor for RF signal peak holding is connected. |
| 61 | BH1 | I | Pin to which external capacitor for RF signal bottom holding is connected. |
| 62 | LDD | O | APC circuit output pin. |
| 63 | LDS | I | APC circuit input pin. |
| 64 | VCC1 | — | RF system Vcc pin. |

D TUNER C.B (Top View)



DECK R/P/E HEAD



<TUNER SECTION>

1. AM VT Adjustment

- Settings: • Test point: TP1 (VT)
• Adjustment location: L4

Method: Set to AM 1710 kHz and adjust L4 so that the test point becomes 6.0 ± 0.04 V.

2. AM Tracking Adjustment

L3 600 kHz
TC1 1400 kHz

3. AM IF Adjustment

L7 450 kHz

4. FM VT Adjustment

- Settings: • Test point: TP1 (VT)
• Adjustment location: L6

Method: Set to FM 108.0 MHz and adjust L6 so that test point becomes 6.0 ± 0.04 V.

5. FM Tracking Adjustment

L2, L5 98.0 MHz

<DECK SECTION>

6. Head Azimuth Adjustment

- Settings: • Test Tape: TTA-320 (TTA-113B, TTC-152)
• Test point: J201 (PHONES Jack)
• Adjustment location: Head Azimuth Adjustment Screw

Method: Playback the 10 kHz signal of test tape and adjust screw so that the output becomes maximum.

PRACTICAL SERVICE FIGURE <HR Model>

<TUNER SECTION>

<FM SECTION>

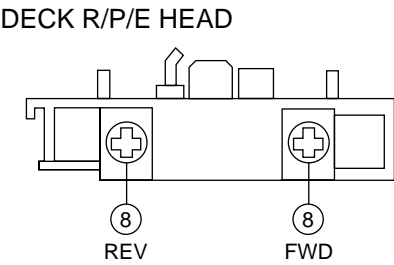
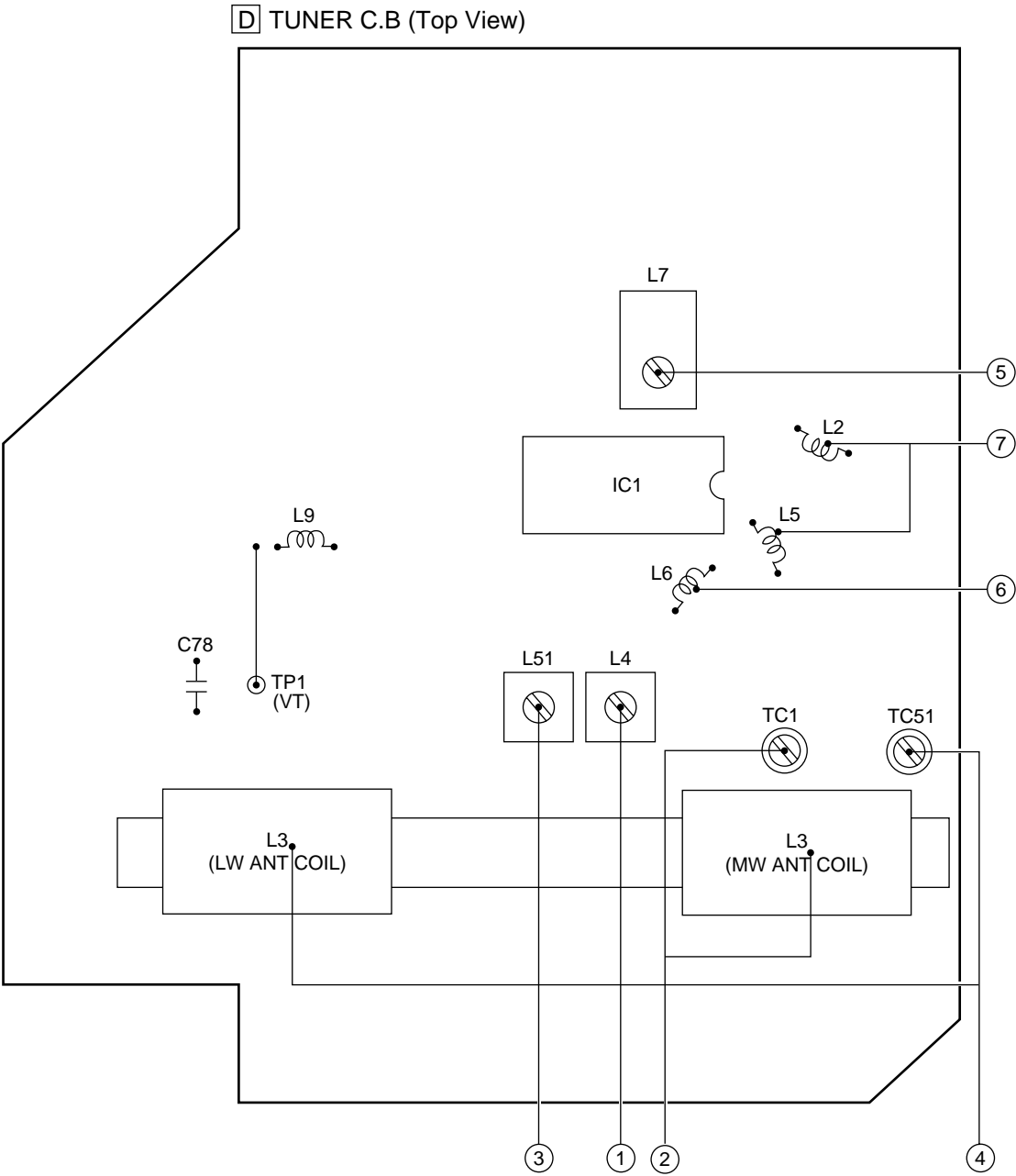
IHF Sensitivity : Less than 18 dB
(IHF, THD 3%) (87.5 / 98.0 / 108.0 MHz)
Signal to noise ratio : More than 52 (w/o Flutter) dB
(Input - 60 dB) (98.0 MHz)
Distortion : Less than 3.0%
(Input - 60 dB) (98.0 MHz)
Stereo separation : More than 20 dB
(98.0 MHz)
Intermediate frequency : 10.7 MHz

<AM SECTION>

Sensitivity : Less than 48 dB
(S/N 10 dB) (600 kHz)
Less than 46 dB
(1000 kHz)
Less than 44 dB
(1400 kHz)
Signal to noise ratio : More than 30 dB
(Input - 74 dB) (600/1000/1400 kHz)
Distortion : Less than 3.0%
(Input - 74 dB) (1000 kHz)
Intermediate frequency : 450 kHz

<DECK SECTION>

Tape speed : 3000 Hz \pm 90 Hz
Wow & flutter : Less than 0.35%
(JIS RMS)
Take-up torque : 30 ~ 55 g-cm
(FWD, PLAY)
F.F & REW torque : 75 ~ 160 g-cm
Back tension : 2 ~ 7 g-cm
(FWD, REV)
S/N ratio : More than 40 dB
(PB, SPOUT, AC, DC)
More than 40 dB
(R/PB, SPOUT, AC)
Distortion : Less than 3.0%
(PB, 1 kHz)
Less than 5.0%
(R/PB, 1 kHz)
Noise level : Less than 35 mV
(PB, AC, DC)
Less than 55 mV
(R/PB, AC)
Erasing ratio : More than 40 dB



<TUNER SECTION>

1. MW VT Adjustment
Settings: • Test point: TP1 (VT)
• Adjustment location: L4
Method: Set to MW 1602 kHz and adjust L4 so that the test point becomes 5.6 ± 0.04 V.
2. MW Tracking Adjustment
L3 (MW ANT) 600 kHz
TC1 1400 kHz
3. LW VT Adjustment
Settings: • Test point: TP1 (VT)
• Adjustment location: L51
Method: Set to LW 288 kHz and adjust L51 so that the test point becomes 4.5 ± 0.04 V.
4. LW Tracking Adjustment
L3 (LW ANT) 153 kHz
TC51 288 kHz
5. AM IF Adjustment
L7 450 kHz

6. FM VT Adjustment
Settings: • Test point: TP1 (VT)
• Adjustment location: L6
Method: Set to FM 108.0 MHz and adjust L6 so that test point becomes 6.0 ± 0.04 V.
7. FM Tracking Adjustment
L2, L5 98.0 MHz

<DECK SECTION>

8. Head Azimuth Adjustment
Settings: • Test Tape: TTA-320 (TTA-113B, TTC-152)
• Test point: J201 (PHONES Jack)
• Adjustment location: Head Azimuth Adjustment Screw
Method: Playback the 10 kHz signal of test tape and adjust screw so that the output becomes maximum.

PRACTICAL SERVICE FIGURE <EZ Model>

<TUNER SECTION>

| | |
|---------------------------|-------------------------------|
| <FM SECTION> | |
| IHF Sensitivity : | Less than 18 dB |
| (IHF, THD 3%) | (87.5 / 98.0 / 108.0 MHz) |
| Signal to noise ratio : | More than 52 dB (w/o Flutter) |
| (Input - 60 dB) | (98.0 MHz) |
| Distortion : | Less than 3.0% |
| (Input - 60 dB) | (98.0 MHz) |
| Stereo separation : | More than 20 dB |
| | (98.0 MHz) |
| Intermediate frequency : | 10.7 MHz |

<MW SECTION>

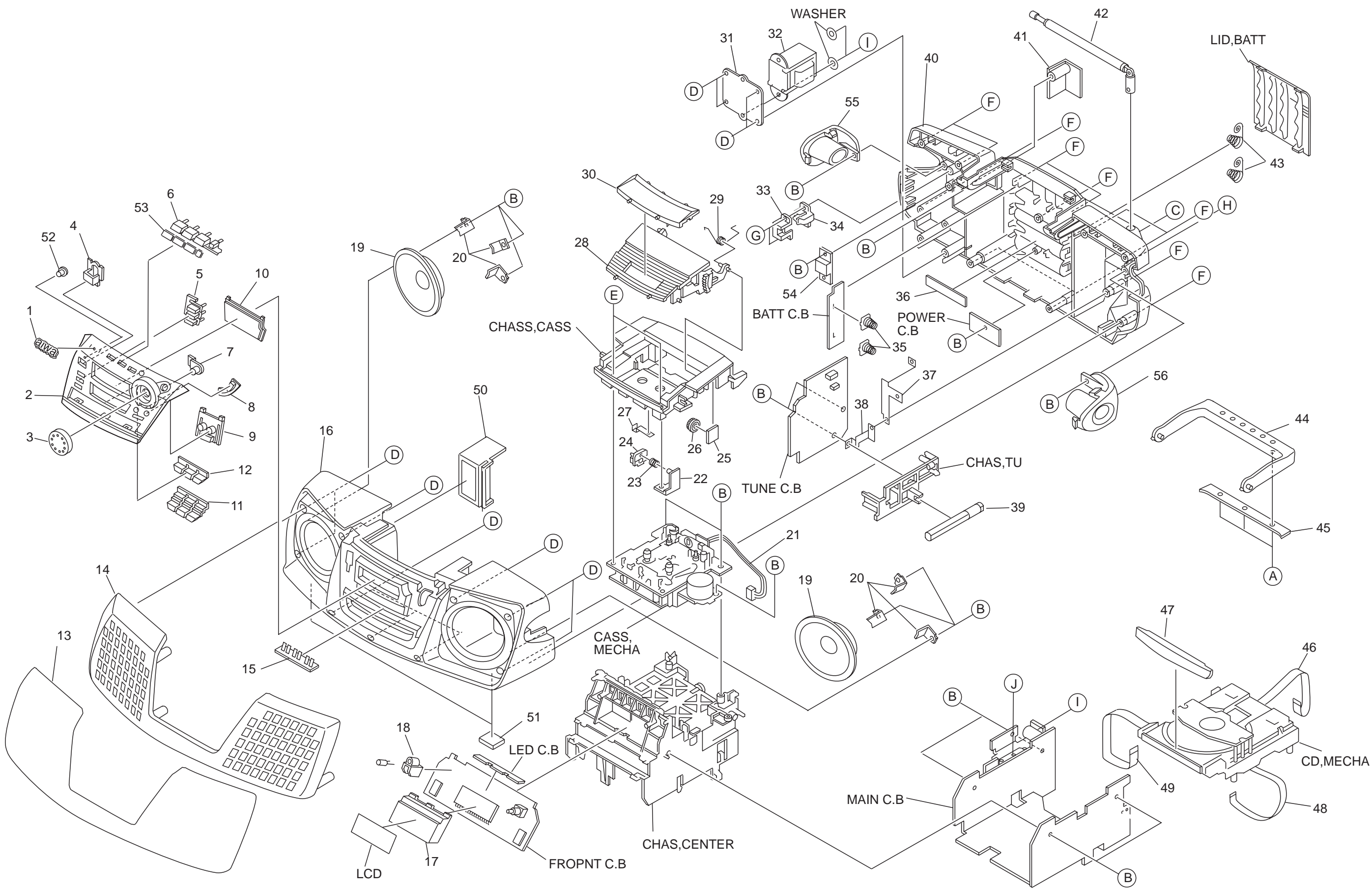
| | |
|--------------------------|---------------------|
| Sensitivity : | Less than 48 dB |
| (S/N 10 dB) | (600/1000 kHz) |
| | Less than 46 dB |
| | (1400 kHz) |
| Signal to noise ratio : | More than 30 dB |
| (Input - 74 dB) | (600/1000/1400 kHz) |
| Distortion : | Less than 3.0% |
| (Input - 74 dB) | (1000 kHz) |
| Intermediate frequency : | 450 kHz |

<LW SECTION>

| | |
|-------------------------|-------------------|
| Sensitivity : | Less than 60 dB |
| (S/N 10 dB) | (153/198/288 kHz) |
| Signal to noise ratio : | More than 30 dB |
| | (153/198/288 kHz) |
| Distortion : | Less than 3.0% |

<DECK SECTION>

| | |
|--------------------|---------------------|
| Tape speed : | 3000 Hz \pm 90 Hz |
| Wow & flutter : | Less than 0.35% |
| | (JIS RMS) |
| Take-up torque : | 30 ~ 55 g-cm |
| | (FWD, PLAY) |
| F.F & REW torque : | 75 ~ 160 g-cm |
| Back tension : | 2 ~ 7 g-cm |
| | (FWD, REV) |
| S/N ratio : | More than 40 dB |
| | (PB, SPOUT, AC, DC) |
| | More than 40 dB |
| | (R/PB, SPOUT, AC) |
| Distortion : | Less than 3.0% |
| | (PB, 1 kHz) |
| | Less than 5.0% |
| | (R/PB, 1 kHz) |
| Noise level : | Less than 35 mV |
| | (PB, AC, DC) |
| | Less than 55 mV |
| | (R/PB, AC) |
| Erasing ratio : | More than 40 dB |



MECHANICAL MAIN PARTS LIST

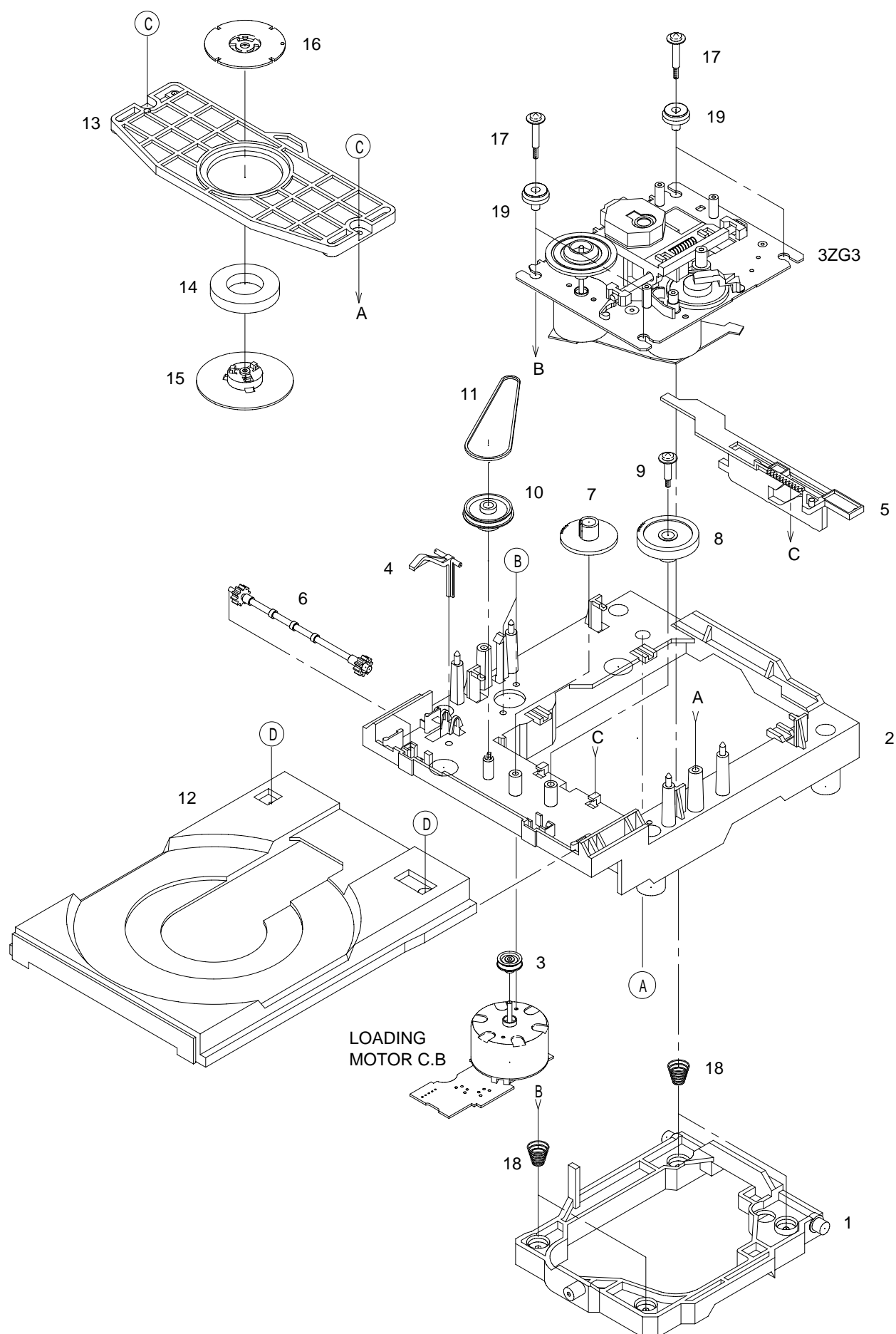
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION | REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---------|----------------|-----------|------------------|---------|----------------|-----------|-------------------------------|
| 1 | 86-CT9-039-010 | | BADGE,AIWA 30N | 33 | 87-A90-086-010 | | COVER,AC-SOCKET |
| 2 | 88-CD5-027-010 | | PANEL FR EX | 34 | 87-A60-178-010 | | JACK,AC E W/SW |
| 3 | 8Z-CH2-020-010 | | KNOB,RTRY VOL | 35 | 88-CD5-207-010 | | SPR-C,BATT - |
| 4 | 8Z-CH2-019-010 | | BTN,POWER | 36 | 88-CD5-041-010 | | PLATE,BATT |
| | | | | 37 | 8Z-CH2-207-010 | | HLDR,ANT 1 |
| 5 | 8Z-CH2-018-010 | | BTN,EQ | | | | |
| 6 | 8Z-CH2-205-010 | | BTN,FUNC BASE | 38 | 8Z-CH2-208-010 | | HLDR,ANT 2 |
| 7 | 8Z-CH2-024-010 | | BTN,Q | 39 | 87-A91-095-010 | | BAR-ANT,MW FOR 2B(SYN)<HR> |
| 8 | 8Z-CH2-025-010 | | BTN,TIMER | 39 | 87-A91-096-010 | | BAR-ANT,MW/LW FOR 3B(SYN)<EZ> |
| 9 | 8Z-CH2-016-010 | | BTN,OPEN | 40 | 8Z-CH2-002-010 | | CABI,REAR |
| | | | | 41 | 88-CD5-040-010 | | PLATE,COVER |
| 10 | 88-CD5-025-010 | | WINDOW CASS EX | | | | |
| 11 | 8Z-CH2-017-010 | | BTN,CD 1 | 42 | 86-CT4-616-010 | | ANT,ROD |
| 12 | 8Z-CH2-023-010 | | BTN,CD 2 | 43 | 88-CD5-206-010 | | SPR-C,BATT LINK |
| 13 | 8Z-CH2-027-010 | | NET,SPKR ASSY | 44 | 8Z-CH2-010-010 | | HANDL,ARM |
| 14 | 8Z-CH2-026-010 | | GRILLE, | 45 | 8Z-CH2-011-010 | | HANDL,GRIP |
| | | | | 46 | 88-CD5-638-010 | | FF-CABLE, 16P 1.0 220MM |
| 15 | 8Z-CH2-206-010 | | BTN,CD BASE | | | | |
| 16 | 8Z-CH2-001-010 | | CABI,FR | 47 | 8Z-CH2-012-010 | | PANEL,CD |
| 17 | 8Z-CH2-202-010 | | HLDR,DISP | 48 | 88-906-181-110 | | FF-CABLE,6P 1.25 |
| 18 | 8Z-CH2-204-010 | | HLDR,SENS | 49 | 88-905-141-110 | | FF-CABLE, 5P 1.25 |
| 19 | 88-CD5-602-010 | | SPKR 4'3.2<EZ> | 50 | 88-CD5-205-010 | | HLDR,JOINT |
| | | | | 51 | 86-CT9-223-010 | | CUSH,FOOT |
| 19 | 88-CD5-603-010 | | SPKR,10 70HM<HR> | | | | |
| 20 | 88-CD5-211-010 | | HLDR,SPKR | 52 | 8Z-CH2-022-010 | | LENS,LED |
| 21 | 88-CD5-635-010 | | CONN ASSY,7P RPH | 53 | 8Z-CH2-015-010 | | BTN,FUNC |
| 22 | 8Z-CH2-211-010 | | HLDR,LOCK 2N | 54 | 87-A91-302-010 | | SW,AC SL 2 2 2 SDKGA40100<HR> |
| 23 | 88-CD5-213-010 | | SPR-C,LOCK | 55 | 8Z-CH2-013-010 | | PIPE,DUCT L |
| | | | | 56 | 8Z-CH2-014-010 | | PIPE,DUCT R |
| 24 | 82-NF5-229-010 | | PLATE,LOCK | | | | |
| 25 | 86-CT9-220-110 | | OIL-DMPR,BRACKET | A | 87-721-097-410 | | QT2+3-12 GLD |
| 26 | 86-CT9-219-110 | | OIL-DMPR,GEAR | B | 87-751-097-410 | | SCREW 3X12 |
| 27 | 8Z-CH2-210-010 | | SPR-P,CASS | C | 87-261-097-410 | | V+3-12 |
| 28 | 8Z-CH2-003-010 | | BOX,CASS | D | 87-661-100-410 | | VFT1+3-16 |
| | | | | E | 87-651-100-410 | | VT1+3-16 |
| 29 | 88-CD5-208-010 | | SPR-T CASS | | | | |
| 30 | 8Z-CH2-005-010 | | WINDOW,CASS | F | 87-651-104-410 | | VT1+3-30 |
| 31 | 8Z-CH2-209-010 | | HLDR,TRANS | G | 87-352-075-210 | | VT2+2.6-10 |
| 32 | 8Z-CH1-627-010 | | PT,E<EZ> | H | 87-B10-281-010 | | BVT2+3-45 |
| 32 | 88-CD5-648-010 | | PT,H<HR> | I | 87-081-511-010 | | VTT+3-6 |
| | | | | J | 87-851-095-410 | | VT2+3-8 GLD |

COLOR NAME TABLE

| Basic color symbol | Color | Basic color symbol | Color | Basic color symbol | Color |
|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| B | Black | C | Cream | D | Orange |
| G | Green | H | Gray | L | Blue |
| LT | Transparent Blue | N | Gold | P | Pink |
| R | Red | S | Silver | ST | Titan Silver |
| T | Brown | V | Violet | W | White |
| WT | Transparent White | Y | Yellow | YT | Transparent Yellow |
| LM | Metallic Blue | LL | Light Blue | GT | Transparent Green |
| LD | Dark Blue | DT | Transparent Orange | | |

CD MECHANISM EXPLODED VIEW 1 / 2

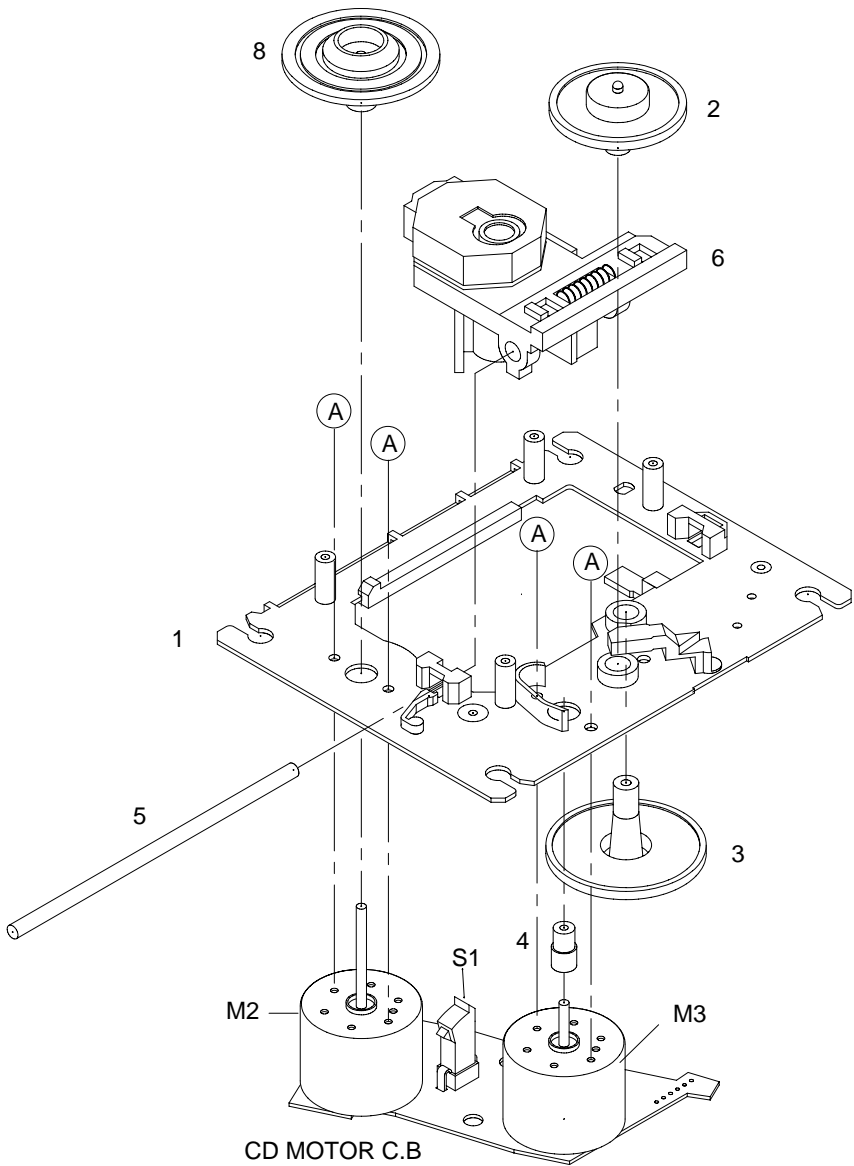


CD MECHANISM PARTS LIST 1 / 2

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION | REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|----------|----------------|-----------|----------------|----------|----------------|-----------|------------------|
| 1 | 83-ZG3-224-119 | | HLDR,M2 | 16 | 83-ZG3-211-01K | | PLATE,DISC |
| 2 | 83-ZG3-228-21K | | CHAS,L6 | 17 | 81-ZG1-254-019 | | S-SCEW,MECH HLDR |
| 3 | 83-ZG3-208-01K | | PULLEY,MOTOR | 18 | 83-ZG3-216-019 | | SPR-C,L |
| 4 | 83-ZG3-213-01K | | LVR,SW | 19 | 80-CD3-214-019 | | CUSH CD A |
| 5 | 83-ZG3-209-01K | | CAM,SLIDE | A | 87-067-945-119 | | VFT2+3-12(F10) |
| 6 | 83-ZG3-207-01K | | GEAR,TRAY | B | 87-251-071-119 | | U+2.6-4 |
| 7 | 83-ZG3-204-01K | | GEAR,C | C | 87-512-074-219 | | VFT2+2.6-8 |
| 8 | 83-ZG3-205-01K | | GEAR,D | D | 87-352-075-219 | | VT2+2.6-10 |
| 9 | 83-ZG3-217-019 | | S-SCREW,GEAR D | | | | |
| 10 | 83-ZG3-220-11K | | GEAR,PULLEY 2 | | | | |
| 11 | 83-ZG3-214-019 | | BELT,L | | | | |
| 12 | 83-ZG3-229-01K | | TRAY,CD 2 | | | | |
| 13 | 83-ZG3-210-01K | | HLDR,CHUCK | | | | |
| 14 | 83-ZG3-602-010 | | RING,MAG | | | | |
| 15 | 83-ZG3-212-01K | | CAP,DISC | | | | |

CD MECHANISM EXPLODED VIEW 2 / 2

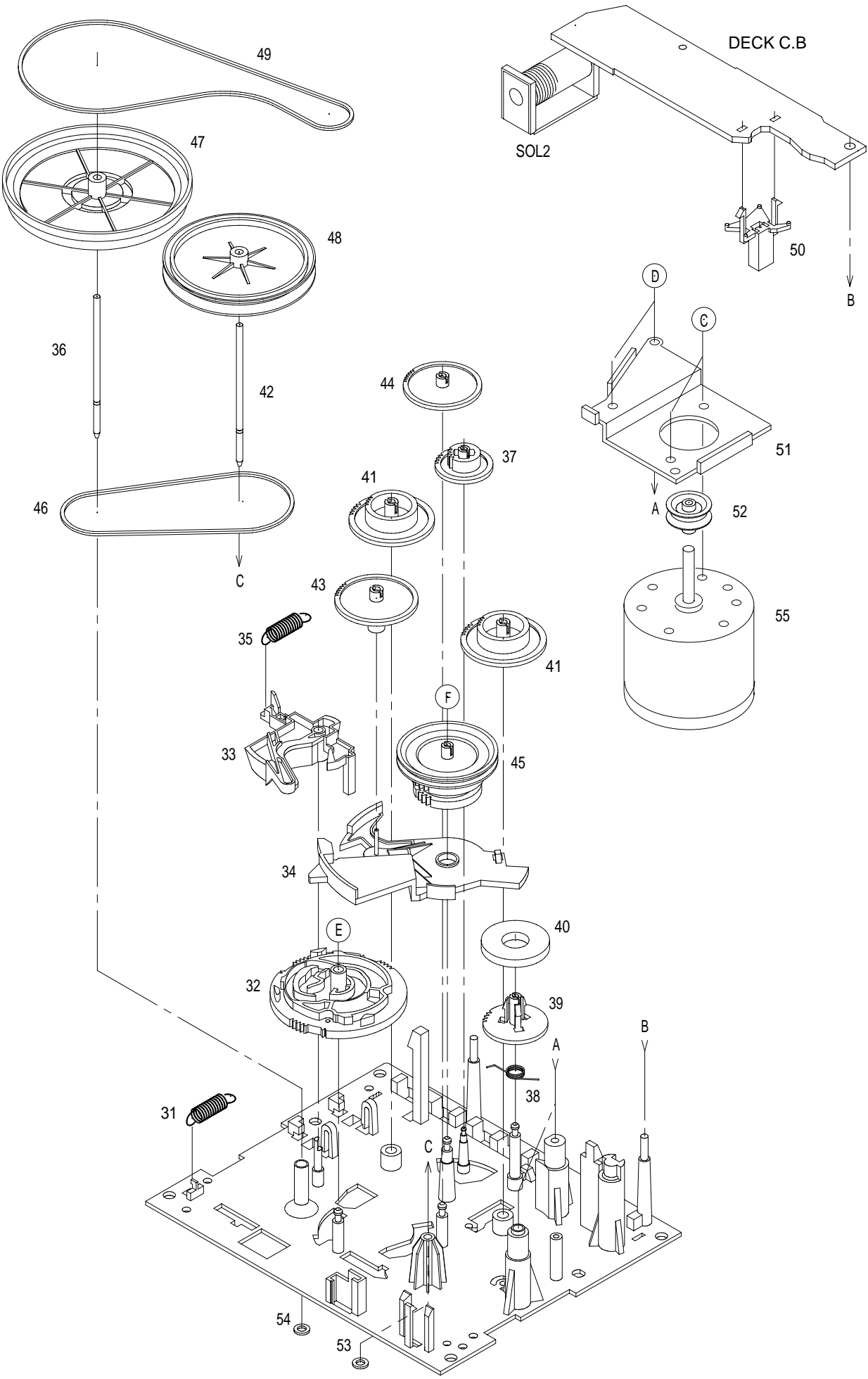
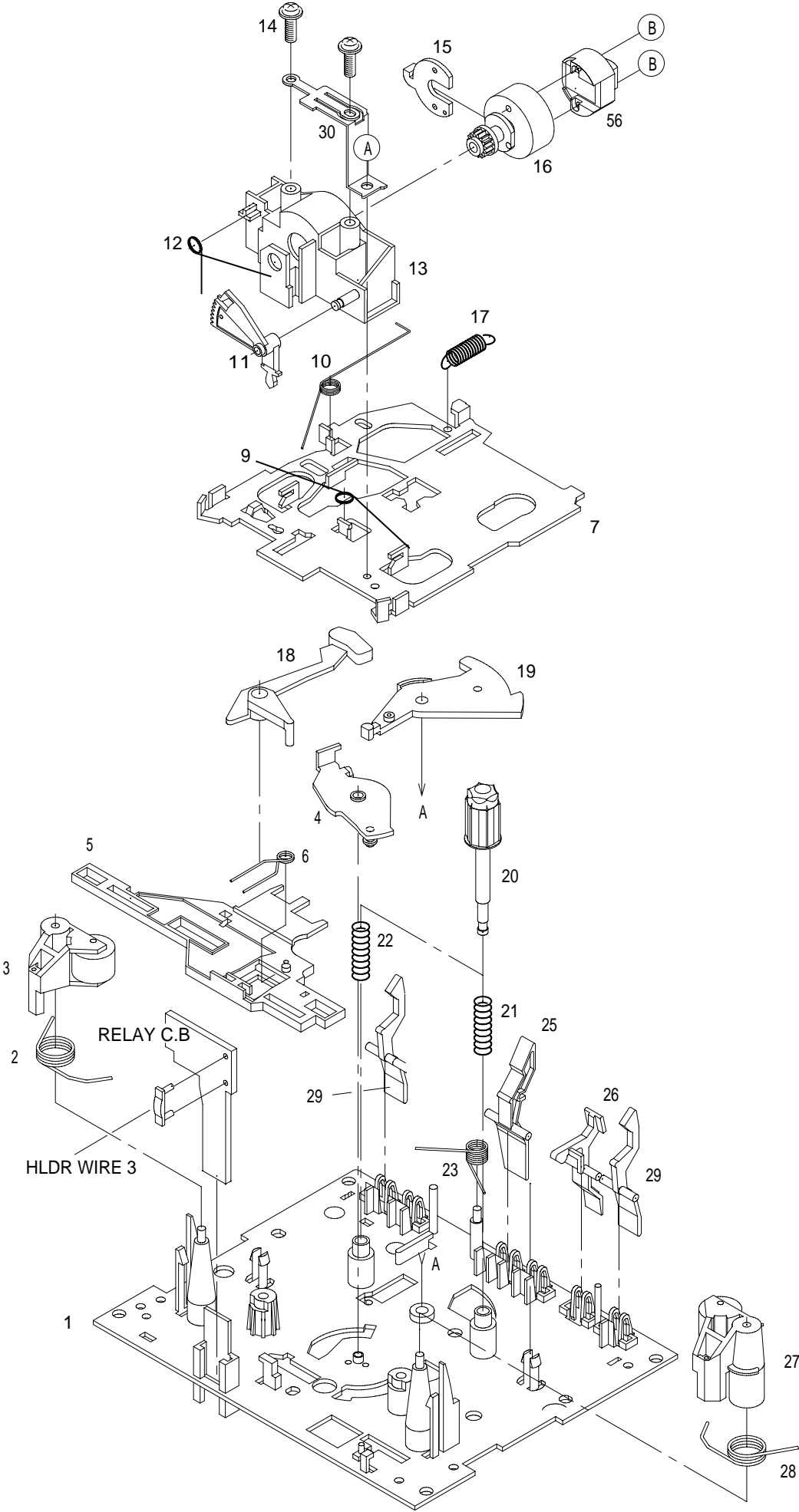


CD MECHANISM PARTS LIST 2 / 2

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|----------|----------------|-----------|------------------|
| 1 | 83-ZG2-202-71K | | O-SERT S ASSY,S |
| 2 | 83-ZG2-204-419 | | GEAR,A |
| 3 | 83-ZG2-205-219 | | GEAR,B |
| 4 | 83-ZG2-220-01K | | GEAR MOTOR 2 |
| 5 | 83-ZG2-240-019 | | SHAFT,SLIDE 3 |
| 6 | 87-070-445-010 | | PICK-UP,KSS-213B |
| 8 | 83-ZG2-233-019 | | TURN TABLE,A5 |
| A | 87-261-032-219 | | SCREW V+2-3 |

TAPE MECHANISM EXPLODED VIEW 1/1



TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO. | KANRI NO. | DESCRIPTION | REF. NO. | PART NO. | KANRI NO. | DESCRIPTION |
|----------|----------------|-----------|--------------------|----------|----------------|-----------|----------------------|
| 1 | 82-ZM1-327-210 | | CHAS ASSY,RN | 33 | 82-ZM1-227-210 | | LVR,TRIG |
| 2 | 82-ZM1-258-010 | | SPR-T,PINCH L | 34 | 82-ZM1-224-410 | | LVR,FR |
| 3 | 82-ZM1-341-010 | | LVR ASSY,PINCH L 2 | 35 | 86-ZM4-201-010 | | SPR-E,TRIG 3 |
| 4 | 82-ZM1-295-310 | | PLATE ASSY,LINK | 36 | 82-ZM1-239-010 | | CAPSTAN 2.2-41.7 |
| 5 | 82-ZM1-266-110 | | LVR,DIR | 37 | 82-ZM1-223-010 | | GEAR,PLAY |
| 6 | 82-ZM1-214-010 | | SPR-T,DIR | 38 | 82-ZM1-322-010 | | SPR-T,FR 60 |
| 7 | 82-ZM1-206-810 | | CHAS,HEAD | 39 | 82-ZM1-220-210 | | GEAR,IDLER |
| 9 | 82-ZM1-269-210 | | SPR-T,BRG | 40 | 82-ZM3-616-010 | | RING MAGNET 4 |
| 10 | 82-ZM3-323-010 | | SPR-T,LINK 3 | 41 | 82-ZM1-216-310 | | GEAR,REEL |
| 11 | 82-ZM1-210-110 | | GEAR,H T | 42 | 82-ZM1-236-010 | | CAPSTAN,2-41.5 |
| 12 | 82-ZM1-213-010 | | SPR-T,HEAD | 43 | 82-ZM1-225-010 | | GEAR,FR |
| 13 | 82-ZM1-207-610 | | GUIDE,TAPE | 44 | 82-ZM1-226-010 | | GEAR,REW |
| 14 | 82-ZM1-283-310 | | S-SCREW,AZIMUTH | 45 | 82-ZM3-333-210 | | SLIP DISK ASSY 2 |
| 15 | 82-ZM1-314-119 | | PLATE,HEAD | 46 | 82-ZM1-338-010 | | BELT,FR 4 |
| 16 | 82-ZM1-208-110 | | HLDR,HEAD | 47 | 82-ZM1-349-010 | | FLY-WHL,RH |
| 17 | 82-ZM1-218-010 | | SPR-E,HB | 48 | 82-ZM1-348-010 | | FLY-WHL,LW |
| 18 | 82-ZM1-263-110 | | LVR,EJECT | 49 | 82-ZM1-351-010 | | BELT,MAIN R7 |
| 19 | 82-ZM1-222-210 | | LVR,PLAY | 50 | 82-ZM1-245-210 | | HLDR,IC |
| 20 | 82-ZM1-217-310 | | REEL TABLE | 51 | 82-ZM1-350-010 | | HOLDR,MOTOR R7 |
| 21 | 82-ZM1-244-510 | | SPR-C,BT | 52 | 82-ZM1-247-110 | | PULLEY,MOTOR |
| 22 | 82-ZM1-285-410 | | SPR-C,BT L | 53 | 82-ZM1-288-010 | | SH,1.63-3.2-0.5 SLT |
| 23 | 82-ZM1-257-010 | | SPR-T,CAS | 54 | 80-ZM6-243-010 | | SH,1.75-3.6-0.5 SLT |
| 25 | 82-ZM1-242-010 | | LVR,CAS | 55 | 87-A90-343-010 | | MOT,SHU2R 70(M1) |
| 26 | 82-ZM1-243-010 | | LVR,STOP | 56 | 87-A90-772-110 | | HEAD,RPH KC9142(RPH) |
| 27 | 82-ZM1-344-010 | | LVR ASSY,PINCH R | A | 82-ZM1-315-010 | | S-SCREW,GUIDE TAPE |
| 28 | 82-ZM1-259-110 | | SPR-T,PINCH R | B | 80-ZM6-207-010 | | V+1.6-7 |
| 29 | 82-ZM1-240-110 | | LVR,REC | C | 87-251-070-410 | | U+2.6-3 |
| 30 | 82-ZM1-298-010 | | SPR-P,EARTH | D | 87-741-073-410 | | UT2+2.6-6 GLD |
| 31 | 82-ZM1-255-310 | | SPR-E,LVR DIR | E | 87-B10-008-010 | | PW,2.15-6.8-0.4 SLT |
| 32 | 82-ZM1-221-110 | | GEAR,CAM | F | 82-ZM3-334-010 | | PW,2.16-6-0.4 |



| サービス技術ニュース | |
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アイワ株式会社

AIWA CO.,LTD.

〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111（代表）
2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110-8710, JAPAN TEL:03 (3827) 3111